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Editorial

Lukenya University Multidisciplinary Journal (LUMJ) publishes original research, review articles, commentaries, clinical case studies and clinical trials in a wide range of issues. The research spans through a wide range of subjects including Education and Social Sciences; Business and Economics; Health, Science and Technology; and Climate Change, Adaptation and Agriculture.

Review of Articles

Articles submitted are subjected through a double-blind review process, where the identities of the authors and reviewers are not disclosed. The review process is confidential.

Medium of Language

The language used in publications is English and Kiswahili. A 250-300-word abstract is provided for each article.

Presentation of Manuscript

Manuscripts should be presented in Times New Roman, 12-point in single spacing, double column, size A4 paper. Soft copies should be sent to manuscripts@lukenyauniversity.ac.ke. They should include the title, author(s) full name(s), institutional affiliation and email of corresponding author. The page margins should be 2.54cm top and bottom and 1.91 on the right and left (moderate). Abstracts should include at most 5 key words at the bottom.

Paragraphs should be separated from preceding texts by a double space. The APA referencing style should be used. Full reference to the publication should be contained in the reference list which should be arranged alphabetically. Only authors referred in the article should be included in the references. The details in the references include the author(s) full name(s), year of publication, title of the article, place of publication, name of publisher. Provide a Digital Object Identifier (DOI), if it is available, in place of a URL. You can obtain assistance on APA style using the links below:

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For short quotations within text, use single quotation marks. Indent longer quotations on both sides and type using single spacing. Set headings in bold on the left margin at the beginning. Do not number your pages since they will be stamped with a number when the full document is being assembled.

Translations should appear to the right-hand side of the example. If longer, they should be in single quotation marks. Submitted articles should be edited, thoroughly proofread and having a proper flow of ideas. The editorial team shall not be obliged to consider articles requiring a high level of language editing.

Length of the Article

The word limit for the manuscript is 3000-5000 words. These number of words exclude tables and figures.

Scope

Lukenya University Multidisciplinary Journal (LUMJ) is based on thoughtful scientific research and analysis on green innovations aimed at improving service delivery and general living standards in all spheres of life. This is approached through a wide range of disciplines including Education and Social Sciences; Business and Economics; Health, Science, Technology; Climate Change, Adaptation and Agriculture. Scholars and researchers within and outside Africa are invited to make their contributions.

Editorial



This journal is the third volume that contains research articles that were taken through a

rigorous double-blinded review process following the 4th International Multidisciplinary Research Conference held on 27-29th June 2023 hosted by the School of Agriculture, Technical Studies and Natural Sciences, and additional articles from the 3rd International Multidisciplinary Research Conference held on 15th–17th June 2022 hosted by the School of Education and Social Sciences.

Our objectives for this publication are: To facilitate sharing, engagement and action on current research areas with the research community; to make research a key activity that involves staff, students and society; to promote knowledge transfer of research outcomes and to provide quality research outputs for informed decision making. The articles cover a wide range of topics in agriculture, health, science, technology, climate change adaptation and mitigation with a multidisciplinary approach in business and economics, education and social sciences, ..

Lukenya University gives special appreciation to Dr Raymond Mutava of Missouri University, Dr. Hapson Mushoriwa of International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Dr. Geoffrey Muthike of Kenya Forestry Research Institute (KEFRI), Dr. Joshua Cheboiwo, Director, KEFRI and Dr Kojo Ahiakpa who gave keynote speeches that provided direction for the conference. We also extend our appreciations to their respective institutions.

This publication was made possible through the contribution of the conference organizing committee members, peer reviewers, editorial team and advisory board members. There were also presenters, rapporteurs, session leaders and organizers of the 3rd and 4th International Multidisciplinary Research Conferences. We appreciate the sacrifices made and contributions to this publication. We thank Prof. Constantine Nyamboga – Vice Chancellor, Lukenya University,

the staff members of Lukenya University and staff members of our partner institutions for their support in different ways including organizing and dissemination of conference information.

Finally, we acknowledge the Board of Trustees, Governing Council, Senate and Management Board of Lukenya University for the enormous support towards the conferences.

Dr. Judith A. Wafula

For the Editorial Team

Message From the Dean, School of Agriculture, Natural Sciences and Technical Studies



The virtual conference was held from 28th to 30th June, 2023, with the aim of bringing together participants from around the world to exchange knowledge, discuss emerging trends, and foster collaborations.

The conference provided a platform for researchers, practitioners, and policymakers to discuss and share scientific research findings in various thematic areas related to transformative technologies, innovations, and management practices for sustainable solutions in food systems and climate change. The discussions highlighted the challenges and identified areas of improvement, paving the way for future collaborations and actions to address these challenges and achieve sustainable and resilient food systems.

Thematic areas: The conference was organized into multiple thematic areas, each focusing on a specific aspect of the conference theme. These areas allowed participants to explore their areas of interest and engage in in-depth discussions within their respective fields.

Attendance: The conference had participants not only from the university but also from other institutions in Kenyan and the world.

Keynote Speakers: The conference featured renowned keynote speakers who delivered insightful talks on various topics related to the conference theme. Their expertise and perspectives provided precious insights and set the tone for the discussions throughout the conference. These included:

- a) **Dr. Hapson Mushoriwa** – Breeding Lead ICRISAT, Zimbabwe
- b) **Dr. Raymond Mutava** – Senior Country Director at World Renew Uganda
- c) **Dr. George Muthike** – Director, KEFRI
- d) **Dr. Kojo Ahiakpa** – Agribusiness Consultant from Ghana.

Thank you very much for your input.

Dr Virginia Mwanzia

Dr. Hapson Mushoriwa – Breeding Lead ICRISAT, Zimbabwe



Dr. Raymond Mutava – Senior Country Director at World Renew Uganda



Dr. George Muthike – Deputy Director, KEFRI



Message from the Vice-Chancellor, Lukenya University, Prof. Constantine M. Nyamboga



Thank you all who participated in the 3rd and 4th Annual International Multidisciplinary Conferences under the themes “Education for Sustainable Development in the Post-Covid-19 Period.” and “Transformative technologies, innovations and management practices for sustainable solutions in food systems and climate change, through a multidisciplinary approach” respectively

The 3rd conference delved into issues in Education, Social Sciences and other areas post Covid-19 pandemic. Various emerging issues that affect the world were tackled in the conferences. Apart from these, opportunities for networking and building partnerships were created. This is in the spirit of having meaningful engagement among participants. This synergy is essential to address the challenges that Africa and world faces today. The 4th conference focused on transformations in form of technologies, innovations and management practices for sustainable solutions in food systems and climate change, through a multidisciplinary approach. These are key areas in the world today.

Thank you, our partners, the South Eastern Block Universities namely; Machakos University, South Eastern Kenya University (SEKU), Garissa University, and Umma University, and Inclusive Climate Change Adaptation for a Sustainable Africa (ICCASA), for your moral support in making the conference a success. Further, I appreciate all researchers who participated in the conference.

God bless you all for the part you contributed to this success.

Prof. Constantine Nyamboga, PhD

Vice-Chancellor and Professor of Information Science

Message from Dr. Kojo Ahiakpa -Keynote Speaker

Trends in Agritech in Africa: Innovations Driving Agricultural Transformation



Distinguished guests, esteemed delegates, and stakeholders of the 4th Virtual International Multidisciplinary Conference, hosted by Lukenya University, School of Agriculture, Technical Studies and Natural Sciences, I am honoured to stand before you today to discuss the crucial topic of "*Trends in Agritech in Africa: Innovations Driving Agricultural Transformation.*" As we gather here on this date, we are witnessing a momentous period in Africa's agricultural journey, driven by disruptive technologies, digital innovations, and a collective commitment to harness the potential of agritech for sustainable growth and development.

The Potential of Agritech in Africa

Africa's agricultural sector has always been the backbone of its economy, sustaining 70 percent of livelihoods. However, agricultural productivity has faced challenges, leading to food insecurity for millions. Today, we embark on a journey to explore the transformative potential of agritech in reshaping Africa's agricultural landscape.

The Agritech Revolution: Harnessing Disruptive Technologies

The rapid development of disruptive technologies has revolutionised agricultural value chains in Africa. Emerging innovations such as Artificial Intelligence (AI), Internet of Things (IoT), edge computing, and precision farming have gained momentum in driving efficiency and sustainability. AI-driven technologies empower farmers and agribusiness with data-driven insights, enabling precise decision-making on crop health, weather forecasts, and soil fertility. IoT and edge

computing facilitate the integration of smart devices to optimise resource use and automate critical agricultural processes and practices, thereby enhancing productivity and profitability.

Digital Solutions for Inclusive Growth

Digital solutions are a catalyst for inclusive growth in Africa's agritech landscape. Microsoft's 4Afrika initiative, leveraging partnerships and extensive networks, is committed to equipping farming communities with cutting-edge technologies like AI and IoT. These initiatives help smallholder farmers optimise yields and access markets, leading to a more resilient and prosperous agricultural ecosystem.

The Role of Startups and Private Sector

Agritech startups, led by the private sector, have played a crucial role in driving innovation and addressing challenges in agriculture. These startups have attracted significant investments, fuelling the development of advanced technologies tailored to Africa's unique agricultural context.

Africa's Journey Towards Agricultural Transformation

Africa's agricultural transformation journey has witnessed significant milestones. The New Partnership for Africa's Development (NEPAD) and the Comprehensive Africa Agriculture Development Programme (CAADP) have been instrumental in driving agricultural development. However, more efforts are needed to accelerate progress and achieve the zero-hunger target.

Challenges and Opportunities

While Africa holds tremendous potential in agriculture, challenges persist. Climate change, limited access to finance, and traditional farming practices impede growth. Nonetheless, these challenges present opportunities for technological interventions, regenerative agriculture practices, and greater collaboration between public and private stakeholders.

Empowering Farmers with Knowledge and Skills

Agritech is not just about technology; it is about empowering farmers with knowledge and skills to utilise these tools effectively. Access to training, capacity building, and awareness programmes are essential to ensure that farmers embrace and benefit from agritech innovations.

Conclusion

As we move forward, we must recognise that the journey towards agricultural transformation through agritech is not solely about technology; it is about the people. Africa's farmers and agribusiness are at the heart of this transformation, and it is our collective responsibility to support and empower them. Together, we can harness the power of disruptive technologies and digital innovations to drive sustainable, inclusive, and resilient agricultural growth in Africa.

Let us seize this moment, embrace the opportunities, and work hand in hand to usher in a new era of farming and agribusiness in Africa, where innovation and technology lead the way towards a prosperous and food-secure future.

Thank you

Dr. Kojo Ahiakpa

Agri-Business Advisor, Ghana

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Influence of Head Teachers' Involvement of Parents on Inclusion of Learners with Special Needs in Education in Public Primary Schools in Mbooni East and West Sub-Counties, Kenya

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ABSTRACT

The concept of inclusion aims to create an educational environment that adapts to each learner, facilitating personalized learning for every child in a learning institution. The inclusion of learners with special needs in public primary schools has posed a significant challenge to stakeholders in the education sector in Kenya. This study focuses on examining the influence of headteachers' involvement of parents on the inclusion of learners with special needs in public primary schools in Mbooni East and West sub-counties, Kenya. A descriptive research design and mixed research methods, incorporating both qualitative and quantitative techniques, were employed to comprehensively address the research challenge. The study population consisted of 1896 individuals, including 204 public

primary headteachers, 1632 public primary school teachers, 6 parents, and 2 Education Officers. A total of 196 respondents, comprising 163 teachers, 23 headteachers, 6 parents, and 2 Education Officers, participated in the study. Quantitative data obtained from questionnaires for headteachers and teachers were analyzed using SPSS version 23, while qualitative data from interviews with parents and Education Officers were analyzed qualitatively. The hypothesis was tested using an independent t-test at a 0.05 level of significance. The analysis revealed that there was no statistically significant mean difference between headteachers' involvement of parents and inclusion of learners with Special Needs Education. However, the involvement of parents showed a statistically significant mean difference between headteachers' involvement of parents and inclusion in

public primary schools' parents (P value=0.0025< P =0.05). The results suggest that teachers do not endorse the headteachers' involvement of parents in the inclusion of learners with special needs education, indicating a poor implementation of inclusion in Mbooni East and West sub-counties, Kenya. The study recommends that educational stakeholders at national and county levels consider the representation of parents with special needs education learners on Boards of Management for improved inclusion implementation.

Key Words: Inclusion, Headteacher, Involvement, Special Needs Education, SNE

1.0 INTRODUCTION

Parents' participation in the special education decision-making process is crucial. They are major stakeholders in the Individualized Education Program (IEP) that shapes a learner's educational path. However, research by Ambrukaitis and Ruvskus (2016) suggests that teachers often perceive parents' interests and expectations as ill-informed or unrealistic, leading to unheard desires and concerns. Headteachers play a pivotal role in bridging the gap between teachers and parents by involving the latter in inclusion programs, employing administrative practices, education policies, and child rights (EADSNE, 2011).

Inclusive education policies aim to broaden access and promote opportunities for all learners with special educational needs. Headteachers must implement these policies to contribute significantly to the inclusion of learners with special needs by involving parents as full partners in the education process. The headteacher's responsibility includes promoting positive attitudes in education and addressing attitudinal factors

that may affect parental and teacher attitudes toward learners with special educational need (European Agency for Development in SNE, 2010)s.

1.1 Objective

The primary objective of this research was to establish the relationship between headteachers' involvement of parents and the inclusion of learners with special needs in public primary schools in Mbooni East and West sub-counties, Kenya.

1.2 Hypothesis

H04: There is no statistically significant difference in the mean between the involvement of parents by headteachers and the inclusion of learners with special needs in education.

2.0 LITERATURE REVIEW

According to EADSNE (2010), the headteacher should appreciate that the crucial area for the success of inclusive strategies is the role played by parents. Therefore, parents of a public school should not only be seen as 'clients' but as 'partners' in the inclusion process. EADSNE (2010) posits that in co-operation with the school, outside agencies and other professionals, parents should have a clear voice and be involved in the planning, implementation, evaluation and the structure and content of their child's education, including the development of their child's IEP.

The headteacher is deemed to play a significant role in the excellent implementation of government institutions educational reforms. As in any reform endeavors, the headteacher goes through several complexities and challenges which are constraints to implementation of the policy. Such may include; scarce resources, as well as stakeholders renouncing their responsibilities, in addition to the top-down

and centralized reform model of Kenyan policies which minimizes the head teacher’s innovative role (Kamunde,2010).A strong school administration is a key ingredient to the institution’s success, effectiveness and development (Ouma, 2009).With the foregoing, according to Muuya (2002), the special needs education policy implementation lacks any guidelines to enable stakeholders to do any innovative and proactive decisions making it impossible for them to contribute to promote inclusive learning for the learners with special educational needs in public primary schools.

Records from the Sub-County offices in Mbooni East and West sub counties clearly indicate assessment reports from the Public Primary School that headteachers do not involve parents in decision-making on placement and intervention of learners with SNE. This seems to be the major reason that there are only two public schools practicing inclusive education.

3.0 RESEARCH DESIGN AND METHODOLOGY

This research study used a mixed research methods which provides an in-depth and clarification of data and adopted the descriptive research design, which is a scientific method which involves observing and describing the behavior of the variable understudy without influencing it in any way. It aims to accurately and systematically

describe a population, situation or phenomenon (Ary, 2010; Achmadi & Narbuko 2013)

3.1 Research Instruments

The research instruments for data collection in this study were questionnaires to collect quantitative data from headteachers and teachers as well as interview guide for collecting qualitative data from the Education Officers and selected parents. In addition, the researcher designed closed-ended questionnaire to answer specific research objectives and to test hypothesis as posited by Mugenda and Mugenda (2003).

The use of drop and pick method applied by the researcher allowed participants ample time to fill the questions before the researcher picked them in person.

4.0 DATA ANALYSIS

Table 1.0 Descriptive statistics on headteachers' Involvement of Parents in planning and Inclusion

The Table 1.0 gives descriptive statistics on headteachers' Involvement of Parents in planning and inclusion of their children.

	Mean	SDev	SNE Training	SA	A	U	D	SD
			No SNE Training	%	%	%	%	%
The headteacher involves parents in decision making on inclusion of their children	4.17	0.985	Yes	14.3	71.4	0.0	0.0	14.3
			No	54.5	36.4	9.1	0.0	0.0
The headteacher involves the parents in helping the	4.11	0.900	Yes	28.6	42.9	0.0	28.6	0.0
			No	36.4	63.6	0.0	0.0	0.0

SNE teachers in making the IEP								
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The study findings indicate that 71.4 percent of the headteachers who had trained in SNE agreed that they involved parents in decision making on inclusion of their children. Headteachers who strongly disagreed and those who strongly agreed both represented by 14.3 percent.

Respondents who had not trained in SNE majority of them strongly agreed that they involve parents in decision making on inclusion of their children at 54.5 percent. Informants who agreed followed at 36.4 and undecided teachers were represented by 9.1 percent. The item had a mean of 4.17 and a standard deviation of 0.985.

The study results indicate that 42.9 percent of the respondents who had trained in SNE

strongly agreed that they involved parents in helping the SNE teachers in making the Individualised Educational Programme (IEP). Headteachers who strongly agreed and those who disagreed both as represented by 28.6 percent. Respondents who had not trained in SNE majority of them agreed that they involved parents in helping the SNE teachers in making the IEP at 63.6 percent. Teachers who strongly agreed followed at 36.4 percent. The item had a mean of 4.110 and a standard deviation of 0.900. This indicates that training in SNE is important because the percent of trained teachers who pushed the duty of preparing IEP to parents was below that of those not trained in SNE, The teachers not trained have little knowledge on IEP, hence they push the preparation to the parents.

Table 1.1 Descriptive statistics: headteachers' Involvement of Parents and Inclusion (teachers)

	Mean	SDev	SNE Training	SA	A	U	D	SD
			No SNE Training	%	%	%	%	%
The headteacher involves parents in decision making on inclusion of their children.	4.2000	0.90894	Yes	19.7	68.4	0.0	0.0	11.8
			No	53.6	32.7	13.6	0.0	0.0
The headteacher involves the parents in helping the SNE teachers in making the IEP	4.2294	0.87047	Yes	36.8	35.5	0.0	27.6	0.0
			No	33.6	66.4	0.0	0.0	0.0

The study findings indicate that 68.4 percent of the teachers who had trained in SNE agreed that the head teachers involve parents in decision making on inclusion of their children. Teachers who strongly agreed at 19.7 percent and those who strongly agreed

as represented by 11.8 percent. Respondents who had not trained in SNE majority of them strongly agreed that the head teachers involve parents in decision making on inclusion of their children at 53.6 percent. Informants who were agreed followed at 32.7 and undecided teachers were represented by 13.6 percent.

The study results indicate that 36.8 percent of the teachers who had trained in SNE strongly agreed that the head teachers involve parents in helping the SNE teachers in making the IEP. Teachers who agreed followed at 35.5 percent and those who disagreed as

represented by 27.6 percent. Respondents who had not trained in SNE majority of them agreed that the head teachers involve parents in helping the SNE teachers in making the IEP at 66.6 percent. Teachers who strongly agreed followed at 33.6 percent.

Table 1.2 Parents Discussion on Inclusion

Table 1.2 indicates the results from the interviews which were converted to themes for analysis.

Parent interview guide	Mean	SDev		Frequency	Percent
View on topic	1.000	0.000	Important	3	100.0
Who communicates	1.000	0.000	Headteacher	3	100.0
Who supervises	1.000	0.000	Headteacher	3	100.0
Support donor	1.33	0.577	Yes	2	66.7
			No	1	33.3
Who coordinates	1.37	0.597	Headteacher	2	66.7
			BoM	1	33.3
Heard of SNE	1.000	0.000	Yes	3	100.0
Like to hear SNE	1.000	0.000	Yes	3	100.0
SNE benefits	1.000	0.000	Yes	3	100.0
Disadvantages	1.33	0.577	Yes	2	66.7
			No	1	33.3
Inclusive of learner SNE	1.000	0.000	Yes	3	100.0
Good things about SNE	1.33	0.577	Education	2	66.7
			Sanitary	1	33.3
Have learner with SNE	1.000	0.000	Yes	3	100.0
Included mainstream	1.000	0.000	Yes	3	100.0
Challenges	1.33	0.577	Yes	2	66.7
			No	1	33.3
Solutions	2.67	0.577	Parents involvement	1	33.3
			None	2	66.7
What heads do	2.000	0.000	Encourage learners	3	100.0
Any other contribution	1.67	1.155	Yes	2	66.7
			None	1	33.3

Any other question	2.000	1.000	Yes	1	33.3
			No	1	66.7

The study reveal that 100 percent of the respondents involved in parents interview guide viewed the topic headteachers administrative practices and inclusion of Special Needs Education very important. Informants also at 100 percent cited that headteachers communicates deliberation of decision from BOM ,staff meetings , reports from learners and parents to the relevant groups with the same percentage as who is responsible for supervising learning programmes, on-going projects, discipline of teachers and learners.

Majority of the informants agreed at 100 percent that they have heard of special education. The parent respondents expressed that the was of great importance for discussion with them since they all had children with special needs in education, and felt happy when involved in matters pertaining these children. The respondents concurred at a 100 percent that the headteacher communicates deliberations of decisions from BoM, staff meetings, reports from learners and parents to the relevant groups. The parents agreed at 100 percent that the responsibility of supervising learning programs, on-going projects, discipline of teachers and learners lies solely in the hands of the headteacher. The institution receives support from donors. The respondents agreed at 66.7 percent that the institution receives donor support which is mainly coordinated by the headteacher, only a 33.3 percent were of the opinion that the BoM coordinated the donor support at 100 percent, the respondents agreed that they had heard of the SNE programme, and had been sensitized and awareness created about inclusion that is why they had agreed to enroll their children in the programme. The respondents agreed that the

SNE programme had saved them a lot of agony of educating their challenged children.

They said that their children had benefitted in learning under the same roof with the regular learners. The preparation of Individualized Educational Programme (IEP) instructional materials was very helpful to the learners and the parents as they were being involved by the subject teachers, and this made them feel involved and informed in the inclusion of their children. This was agreed at 100 percent. On the same breath, respondents who are the parents of learners in the inclusion programme cited some challenges of the programme such as, stereotyping by parents of regular learners who view them as unfortunate parents and are not willing to have their children share facilities and instructional materials with the learners with special needs in education. Their children also face discrimination from some of their peers and some teachers who have no training in SNE. Due to lack poor infrastructure and insufficient provision of special or adapted learning and teaching materials, learners with SEN, do not benefit adequately from the inclusion programme.

A major challenge is understaffing of SNE trained teachers in public primary schools. The respondents agreed at 66.7 percent that they had heard about Inclusion programme, hence it was not a new concept to them, but stakeholders were gradually taking in. The respondents had learners in the programme and were ready to support their children. The respondents suggested intensive sensitization and awareness on Inclusion, regular assessments and prompt interventions, more financial support from the government to SNE kitty in FPE. The government to motivate SNE teachers with special

allowances and remuneration in order to have better implementation.

These findings were greatly supported by Rogan and Grayson (2016), who opined that parents had neither been adequately sensitized nor awareness been created on inclusive education. Hence, the parents are not of any significant help to the teachers handling their children, especially on home environment, parental commitment to education, health and nutrition, which influenced learners' attitude to learning and anticipated changes. The study indicates that 100% of the informants had heard about inclusion of learners with SNE. 66.7 percent of them have heard on education provision while 33.3 percent have not heard.

Respondents in the study cited that at 100 percent they had learners with special needs in education, and that they were willing to have them included. But they cited their fears in their children being discriminated against and stereotyped by the regular learners, and their parents as well as the teachers who have on training in SNE. They also cited lack of appropriate infrastructure and insufficient instructional materials, for example adapted toilets and desks, magnifying glasses, among others. They expressed their fears that the programme may be too expensive if special levies were charged on the inclusion programme and that the government may not meet the subsidy or make delays in disbursements. The parents also said that the public primary schools in Mbooni East and West Sub-counties were poorly staffed with teaching staff, and more especially those trained in SNE.

The study indicates that the possible solution on the challenges facing implementation of learners with SNE in the institutions is total involvement of the parents. This is represented by 33.3 percent while majority of the informants at 66.7 percent did not respond to question. 66.7 percent of the

respondents had other key points of discussion where they cited government delays in disbursements of the special kitty for SNE and which for many years has remained constant even with the high cost of living and inflation. The respondents cited lack of efficiency in SNE programme due to the few field officers (CSO-SNE) and inadequate equipment for assessment.

An interview with one of the Education Officers revealed that negative attitudes portrayed by the parents in participation in inclusion dragged down the program of inclusion of learners with SEN. The officer further narrated that parents do not cooperate when summoned to the school to get reports about their children, claiming that their children were normal. Hence, this creates communication breakdown and lack of information. The challenges were said to be systemic in nature. Richard and Rodgers (2014) posited that the availability and provision of adequate support dictated the teacher's attitudes. In cases where support and resources are not sufficient, the teachers will always portray negative attitudes. At 33.3 percent of the respondents, had questions to ask such as; who trains the SNE teachers? What is the fate of the learners with SEN when they complete primary education? Will the donors continue to support the learners when they join higher institutions of learning?

4.1 Independent T- test Head teachers' Involvement of Parents and Inclusion

H04. There is statistically significant mean difference between if headteachers involves parents in inclusion of learners with special needs and been trained in SNE

H14. There is no statistically significant mean difference between if headteachers involves parents in inclusion of learners with special needs and been trained in SNE

Since $p\text{-value} = 0.1315 > P\text{-value} = 0.05$, we reject H_0 and conclude that there is no statistically significant mean difference between headteachers involves parents in inclusion of learners with special needs and been trained in SNE ($M= 3.71$. $SD= 1.254$) not been trained in SNE ($M= 4.405$, $SD = 0.5965$), $t(16) = -1.59$, $p= 0.1315$).

4.2vOne-way Anova Headteachers Involvement of Parents in Planning and Inclusion

H_{04} . There is statistically significant mean difference between if headteachers involves parents on inclusion of learners with special needs and their level of education

H_{14} . There is no statistically significant mean difference between if headteachers involves parents on inclusion of learners with special needs and their level of education

Since $p\text{-value} = 0.0025 < p = 0.05$, we fail to reject H_0 and conclude that there is statistically significant mean difference between if headteachers involves parents on inclusion of learners with special needs and their level of education as determined by one-way ANOVA ($F(2, 158) = 7.9405$, $P=0.0025$).

Influence of Headteachers' Involvement of Parents on Inclusion of Learners with Special Needs Education

The objective of this study was to identify the influence of headteachers' involvement of learners with special needs education in public primary schools in Mbooni East and West sub-counties, Kenya.

The quantitative descriptive results from questionnaires show that the respondents do agree with the variable that headteachers involve parents in the inclusion program of their children who live with disabilities in public primary schools in Mbooni East and West Sub-Counties.

The independent t- test hypothesis and the One-Way ANOVA hypothesis also corroborate by concluding that there is statistically significant mean difference between if headteachers involve parents in decision making on inclusion of learners with special needs in education in public primary schools in Mbooni East and West Sub-Counties, Kenya. Since $p\text{-value} = 0.00025 < p = 0.05$, we fail to reject H_0 and conclude that there is statistically significant mean difference between if head teachers involve parents in inclusion of learners with special needs and their level of education as determined by one- way ANNOVA ($F(2, 158) = 7.9405$, $p = 0.0025$). The results therefore concur with literature reviewed for this study which show that involving parents in decision making influences greatly the implementation of their children in inclusive learning in public primary schools in Mbooni East and West sub-counties, Kenya.

Findings

The findings of this objective on involvement of parents in planning and inclusion indicated that the headteachers did not approve the involvement of parents in the planning of implementation of inclusion programs as necessary. Nevertheless, the teachers who participated approved the involvement of the parents in the planning of implementation of inclusion programs in public primary schools as very necessary. The researcher concurs with the teachers since they are the implementers of the curriculum and know the importance of the parent in the implementation of the inclusion curriculum.

5.0 RECOMMENDATIONS

Parents are represented in the Board of Management (BoM) which operates under the Education Act. The BoM is bestowed with the responsibilities to support curriculum development, participate in the school development plan and the learning

improvement plan, and manage school finances. The Ministry of Education should amend the policy on nominations and make it a policy that there is a slot for such parent representation in the BoM. The Ministry of Education should amend the policy on nominations and make it a policy that there is a slot for such parent representation in the BoM. Government to consider deployment of persons with disabilities (PWDs) in all sectors including agricultural field officers, Veterinary officers, among others since, “Disability is not Inability”.

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Effect of Teacher Promotion on Pupils' Academic Performance of Primary Schools in Mukaa Sub County, Makueni County.

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ABSTRACT

The social learning theory asserts that individuals learn by observing others and imitating their actions. It also considers the role of internal mental process of learning. This implies that people learn from observing others hence the behaviour of teachers at work place will influence greatly the learning process of the learners. The goal of this study was to ascertain the influence of teacher motivation strategies on students' academic performance in Mukaa Sub County, Makueni County, Kenya, as a result of subpar academic performance in some schools in Mukaa Sub County. The study's goals were to examine the impact of incentives, the work environment, teacher preparation, and teacher promotions on students' academic performance in public primary schools in Mukaa Sub County, Makueni County. Herzberg's Motivation Theory formed the foundation of the study. Descriptive and correlational research designs were employed by the researcher. The researcher purposively selected 92 teachers from 300 primary school teachers in Mukaa Sub County. Data was collected through questionnaires. Data was analysed through the tables, frequency and

percentages. The study found that low academic performance can be attributed to the fact that most teachers lack motivation for their jobs, little has been done in the way of recognition, training and development, incentives, and career promotion. The study concluded that learners in Mukaa Sub-County's primary schools performed poorly due to a lack of motivational strategies. The study recommends that primary school teachers to use motivational techniques because it improves students' academic performance in the KCPE national examinations.

Key Words: Teacher motivation; Teacher: Performance: Reward; Workplace environment: Performance appraisal; School performance

1.0 BACKGROUND INFORMATION

Motivation is the process of encouraging subordinates to help the institution achieve its objectives. The features of motivation are as follows. Motivation is the urge, drive, desires, aspirations, or needs of human being, which are internal. Motivation produces goal directed behavior. For example, a promotion may be given to an employee with the objective of improving his performance.

Positive motivation like increase in pay, promotion, recognition etc yield to increased productivity. Negative motivation like punishment, stopping increments, threatening among others leads to low productivity. Motivation will have a different effect on each individual. This is because motivation is based on human behavior. Different types of motivation are frequently described as being either extrinsic or intrinsic. Extrinsic motivations are those that arise from outside of the individual and often involve rewards such as trophies, financial gains, social recognition or praise, provision of housing, medical care programs, excursions.

Motivational strategies are various activities of encouraging employees to develop goal-oriented behavior in an organization. Behaviors in people is very complicated to understand and promote. according to Albert Bandura: a behavioral theorist in his social learning theory he suggests that individuals learn by observing others and imitating their actions. It also considers the role of internal mental process of learning. This implies that people learn from observing others hence the behavior of teachers at work place will influence greatly the learning process of the learners. Motivation strategy is the development system that helps employees within the organization to individually contribute to achievement of the organizational goals (Muchelule, 2015). Holbeche (2009) observed that motivation strategies are supposed to help promote the behaviors and other aspects of job performance. Hence the need to meet the basic needs of the employees at the work place.

This is also emphasized on by Guajardo (2011) who emphasized that monetary gains amongst teachers plays a big role in acting as an incentive towards more achievement. He further notes that salary increment is a key motivator to teachers in Kano state, Nigeria.

On the other hand, motivational strategies have an influence on teachers' job performance hence influence quality of education. This is because the head teacher as the head of the school is mandated with the responsibility of implementing education

policies and teachers are expected to be actors of achieving the goals of the institution and educational objectives (Etomes, & Molua, 2019). Getange (2016) noted that teachers' job performance was affected by the motivational strategies used by the Head of institution in ensuring they achieve the educational goals. This means the heads of institutions plays a key role in enhancing job performance. Luthans (2011) notes that motivational strategy should aim at generating in an employee, the desire to achieve the institutional goals. This means the strategy should aim at making the tasks more fulfilling to the teacher therefore leading to intrinsic motivation. A good example of the motivational strategies used to promote teachers work performance include but not limited to recognition, professional prestige, monetary benefits, opportunities for professional growth, provision of sufficient materials and infrastructure, and listening to employees' grievances (Guarjardo, 2011).

1.1 Statement of the problem

Various studies have shown that when teachers are motivated, parents would realise fully the value of investing in education of their children as good academic performance would in turn motivate them. This at the end would lead to having knowledgeable professionals who are highly competitive in their jobs and work. When positive motivation was given to teachers in terms of fringe benefits and good salaries, they in turn did their best and felt proud of being teachers. This was evidenced in schools where the administrators incorporated various motivation strategies to their teachers. For teachers, motivation plays an important role because it drives them to attain educational goals. Studies have highlighted that motivated teachers have primary interest and inspiration in teaching hence expected to better pupils' academic performance. On the other hand, teachers who lack motivation discharge their duties with low morale just to fulfil the norm of being employed and offer non-stimulating teaching which negatively affects the

quality of education and leads to poor school performance.

1.2 Purpose of the Study

The purpose of the study is to assess the effect of teacher on pupils academic performance of primary schools in Mukaa Sub county, Makueni County.

1.3 Objective

To determine the effect of teachers promotion on pupils academic performance of primary schools in Mukaa Sub county

2.0 LITERATURE REVIEW

Promotion and Academic Performance

Bohlander Snell (2004) put it forward that promotions involve change of the duties to those of a higher level in the organization. The new job normally provides an increase in financial gain, status and demands more skills and carries more responsibility. Promotions enable an organization to utilize the skills and abilities of its personnel more effectively thus, good performance realized. The three key criteria for determining promotions are merit, seniority, and potential.

LG, Ndijuye, 2019, in his study on timely motivation as a motivating factor for performance, he observes that promotion plays a very important role in motivating teachers. This is because it is associated with increased pay, social status and thus one feels encouraged.

Stephen Robbins etal (1999) say that social status is a prestige grading, position, or rank within a group. It is therefore, important for employees to believe that the status of an individual in a system is congruent with the job he or she is assigned to. The possibility of advancement often serves as a major incentive for superior managerial performance and promotions are the most significant way to recognize superior performance. Therefore, it is extremely important that promotions be fair, based on merit and untainted by favouritism (James etal, 2000:397). In some instances, even fair and appropriate promotions can create a number of problems for instance, members of an organization who are

bypassed feel resentful, which may affect their morale and productivity.

In Uganda's context there is always a problem of failure to retain staff especially higher cadres. This is evident in the Uganda Police Forces. Barungi (2005) contends that this problem has its roots in conditions of service and job satisfaction.

There is no practical way to indicate that a man was impassioned outside the area of his/her competence without prejudice to his/her career, the up or out promotion policy ignores the possibility that a man/woman may have the ability to perform with excellence in a lower grade job even though he may not have the ability for a higher-grade job (Laurence etal, 1969:53).

This is still consistent with the Peter Principle, where one is promoted to his highest level of incompetence that is a common phenomenon in the Uganda Police Forces and other organizations. On the other hand, it is quite possible to turn in years of satisfactory performance without receiving a promotion.

Some organizations are structured in a manner that does not allow for frequent promotions, and even above-average performance is expected as a normal contribution. Sometimes contributions are recognized with extra fringe rewards instead of promotions and at times not. If one has achieved results, but has not been rewarded by frequent promotions, then he or she may face objections from other potential employers who consider lack of promotions as an indication of few achievements or inability to get along with others. Many occupations and professions offer their recruits the opportunity of pursuing a career, in the sense that individuals can be promoted through clearly defined promotion hierarchy. This aspect of career is referred as its vertical mobility dimension (Ladinsky,1963;Maclean, 1992). Promotion can therefore be regarded as the passage to a higher rank. In management, promotion is one of the reinforces of the rewards system to help motivating employees. As stated by Peter principle (Peter Hull,1969), in hierarchy using promotion solely as a reward for good

performance, people tend to rise to their level of competence because good performance in one job is no guarantee of good performance in another. According to (Hasibuan,2012) explains that promotions are carried out by companies with the following objectives:-

First to provide greater recognition, position and remuneration for employees with primary performance. Secondly to stimulate employees to be more passionate about work, have primary discipline and increase their work productivity. Third to provide opportunity for employees to develop their creativity and innovation which is better than the optimal profit of the company.

2.1 Summary of Literature Review

Teacher motivation is a significant aspect in school set up; what motivates the teacher and how this translates to better job performance by the teacher. The study's independent variables are motivational strategies positively influencing teachers' job performance while the dependent variables are the teachers' job performance, class management resulting to improved students 'academic job performance. The section further entailed different trends in teacher motivation and past literary works on teacher motivation, citing approaches to teacher motivation such as behavioural approach, Humanistic approach as well as cognitive approach. A review of motivational strategies such as rewarding, head teachers' recognition of teacher's efforts is expounded. When giving back to the community teachers should ensure that they give their best efforts towards achievement of better results amongst the learners that they teach. Measure of motivation should be put in place to help retain

teachers who have been leaving the career for more promising jobs in other departments and in building a positive view of the teaching profession.

3.0 RESEARCH METHODOLOGY

The researcher in this study used descriptive and analytical whereby both the quantitative and qualitative methods analysed the influence of motivation of teachers towards students' performance in public primary schools in Mukaa sub county, Makueni County, Kenya. The study population ranged from staff members from the selected schools and the pupils within the respective school. The respondents comprised of Heads of institutions and teachers. The researcher used three research instruments namely; Interview guide (FGDs), questionnaires and observation. Data was collected from both primary and secondary sources. Primary data was got by extracting information regarding the influence of motivation strategies used by teachers towards students' performance, by reading newspapers, journals, text books plus the already existing work on internet and magazines. Primary data was got from the field by use of the following methods;

4.0 DATA PRESENTATION AND INTERPRETATION

4.1 Response Rate

The study paid attention to teachers in public primary schools within Mukaa Sub County. The questionnaires return rate was at 100% per cent for the teachers. This was possible because the researcher administered the questionnaires and waited for them to be filled in.

Table 1: Questionnaire response rate

Questionnaire Response	Number	Percent
Responded	92	100.0
Not Responded	0	00.0

Source : Field Data 2023

Teachers Rewards and pupils` performance

Data on rewards awarded to teachers which comprise of both intrinsic and extrinsic rewards is presented in the following sections.

Table 2 : Intrinsic Reward

Statement	N	Mean	Std. Deviation
My accomplishments and good work are praised by the school administration and parents.	92	3.54	1.386
I'm always praised for my work	92	3.73	1.151
When motivated I attend my lessons on time	92	3.81	1.261
Availability of teaching resources like books keeps me motivated	92	3.32	1.240
I will decide on the strategies for doing the work	92	3.72	1.564
I have a strong place in school community	92	2.00	1.002
Mean		3.35	1.27

Source : Field Data 2023

Table 4.6 showed that the response to the statement “My accomplishments and good works are praised by my the school administration and parents had a mean of 3.54 (SD=1.386). To the statement “I am always praised for my work” the respondents scored a mean of 3.73 (SD=1.151).

To the statement, “When motivated I attend my lessons on time” the responses were on the affirmative being represented by a mean of 3.81 and SD of 1.261. on statement of, “ availability of teaching resources like books keeps

Intrinsic reward and recognition on school Performance

The researcher collected data on the knowledge of the respondents on intrinsic reward and recognition on school Performance. Findings are presented in table 4.6

me motivated,” the respondents agreed with a high mean of 3.32 and standard deviation of 1.240. to the statement, I will decide on the strategies for doing the work,” the response was an agreement of a mean of 3.72 and standard deviation of 1.564. To the statement that, “I have a strong place in the community.” The response was a bit low with a mean of 2.00 and standard deviation of 1.002. This primary average showed that most respondents agreed that they were frequently rewarded for their work. The statement "Are you satisfied with your current position of class teacher, senior teacher

or promotional grade?" the response to that statement was 95% of the teachers were not satisfied since they had served in the same position for many years despite the fact that they had gone for higher studies. This was a clear indication of stagnation in job group. The question "if you have better offers outside the teaching profession, would you go for them?" the response to that

question was that out of the 92 respondents 90 of them which represents 97.83% agreed that they would be ready to quit teaching profession for better professions.

The fifth question of the interview was "do you feel that you receive recognition for the work you do?" The results are presented in table 4.7:

Table 3: Respondents' recognition for good work in school

Category	Frequency	Percentage
Yes, I receive	43	47
No, I don't receive	49	53
Total	92	100

Source : Field Data 202

According to the table 4.7, the majority of the respondents (53%) don't receive recognition for the work they do, and (47%) of the respondents receive recognition for the work they do. Overall, the intrinsic reward and recognition on school performance had an average of 3.45 this means that the majority of respondents believed that inherent reward and appreciation the success of the school has a positive influence on academic performance. This means that intrinsic rewards play a crucial role in motivating teachers.

The results agree with the findings of Tahira, Mumtaz, Abdul & Mimosa (2017) who received the perception from teachers regarding the influence of teachers' incentives on pupils' academic performance that was examined and

Table 4: Extrinsic Reward

Statement: when were you last promoted to	N	%
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reward system was noted to have a major impact on teacher performance in schools. In addition Venjie (2021) in the study on impact of intrinsic motivation facets on students' academic performance, came to the conclusion that intrinsic motivators need not be ignored as they play an important aspect towards motivation of teachers which is translated towards pupils academic performance in class. Those in authority need to put that in consideration.

Extrinsic reward on school performance

The respondent's acknowledgement of extrinsic rewards and pupils' success was analyzed in this section. The results are presented in table 4.8

next grade			
1-3 years ago		5	5
4-5 years		18	20
Over 5 years ago		69	75
Total		92	100

Source : Field Data 2023

From the data presented on table 4. 8 above 5% of the respondents were promoted in the last 3 years. 20% were promoted 4-5 years ago while 75 % were promoted more than five years ago. This was a clear indication that majority of the teachers in Mukaa sub county have stagnated in the same job group for many years. On the preceding statement, “ your choice above how has it impacted on you towards pupils performance.” The response was that 95% agreed that it impacted negatively on them. This can be interpreted as

failure to have clean cut promotion guidelines of teacher’s impacts negatively on the motivation of teachers hence leading low performance and low self-esteem on the teaching fraternity. The failure to promote teachers has a negative impact in the academic performance of pupils. This implies that the government needs to put in place proper promotion guidelines that will raise the morale of the teachers.

Table 5: Model Summary of Regression Statistics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.674 ^a	.454	.446	.67069

Source : Field Data 2023

Table 5 presents the analysis of variance (ANOVA) $F=9.194$ outcomes with 1 and 90 degrees of freedom. At a level of less than 0.05, the F statistic is important. This result suggests that the study of the regression was significant at $p = 0.003$ ($p < 0.05$). Hence, this is stated as $F(1,90) = 9.194$, $p < 0.05$). In general, this means that the model fitted well between the dependent and the independent variable.

CONCLUSION

Promotion, according to the researcher, inspires teachers. Despite the fact that teacher compensation and working conditions have no direct bearing on students' academic performance, 88% of respondents said they strongly support teachers. In light of this, the study came to the conclusion that, even though some motivating factors have no direct bearing on students' performance, others do. As a result, it is crucial to fully realize the motivation of the teachers.

RECOMMENDATION

In order to raise student performance, institutional teacher reward systems must be improved.

Therefore, the ministry of education should create standardized incentive programs for teachers and should boost their motivation by establishing clear reward-system policies and ensuring that teachers are regularly promoted.

The administration of the school should establish clear procedures for collaborating with the teachers so that they can see that their rewards are a result of their efforts and that their expectations are met by providing them with opportunities for growth and development. More so the teachers service commission should formulate a clear promotion guideline for teachers

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Nduni za Fasihi ya Watoto Katika Uwasilishaji wa Dhamira: Kielelezo cha *Sungura Mpanda Ngazi* na *Sitaki Iwe Siri*.

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IKISIRI

Fasihi ya Kiswahili ya watoto kama taaluma haina muda mrefu katika historia ya fasihi ya Kiswahili. Ikilinganishwa na fasihi ya watu wazima ambayo ilianza muda mrefu, na pia tafiti nyingi kufanyika katika mataifa mengi. Fasihi ya watoto inaonekana kuwa imetelekezwa kwa muda mrefu kutokana na kutokupewa umuhimu unaostahili na wahakiki na hivyo kudharauliwa na wanajamii (Bakize, 2013). Wanajamii wengi wamekuwa wakiinasibisha fasihi hii na mambo ya kitoto ambayo ni rahisi, yasiyo ya msingi sana; na ndiyo maana inaitwa fasihi ya watoto (Wamitila, 2008). Tafiti zinaonyesha kwamba fasihi hii imechipuka barani Afrika hivi karibuni, hasa kwenye miaka ya 1980 kutokana na sababu kadhaa lakini mojawapo ikiwa ni kutiliwa mkazo kwa masuala ya haki za watoto (Ngugi,

2016a). Mulokozi katika Semzaba (2008) anaeleza kwamba nchini Tanzania, fasihi ya watoto ilichipuka wakati na baada ya ukoloni katika miaka ya 1960 na kushika mizizi miaka ya 1970. Zaidi ya hayo, fasihi hii ilishika mizizi zaidi miaka ya 1990 baada ya kuzinduliwa kwa mradi wa Vitabu vya Watoto Tanzania. Nchini Kenya, fasihi ya watoto imepata umaarufu miaka ya 2000 baada ya kujumuishwa katika somo la Kiswahili kuanzia shule ya msingi hadi sekondari. Vilevile, hatua ya serikali ya kugharimia masomo imechangia sana katika maendeleo haya kwa sababu serikali ilichukua jukumu la kununua vitabu vya ziada na kiada. Makala haya yanalenga kutathmini ndumi za fasihi ya watoto kwa kurejelea maendeleo ya fasihi ya Kiswahili ya watoto kwa kufanya ulinganishi katika nchi za Tanzania na Kenya. Nchi hizi

zimeteuliwa kwa sababu, kwa mujibu wa utafiti wa awali, fasihi ya Kiswahili ikiwa ni pamoja na fasihi ya watoto ya Kiswahili imepamba moto zaidi katika nchi hizi mbili za Afrika Mashariki kuliko nchi nyingine.

Istilahi Muhimu: Dhamira, Nduni, Watoto, Uhalisia.

1.0 UTANGULIZI

Fasihi ya watoto ni fasihi inayowalenga watoto pekee. Sign na wenzake (2002) wanaonyesha kuwa fasihi ya watoto ni ile ile moja ulimwenguni kote. Wanasema kuwa ni lazima fasihi hii iwe inaonyesha matendo na maisha ya mhusika kinaganaga, mhusika awe anatia hamasa na lazima iwe inaburudisha. Fasihi ya watoto ni uwanja ambao huhusisha aghalabu kila mtu katika jamii kwani kila mtu huwa na uhusiano wa aina fulani na watoto.

Kulingana na Stephens (1992) fasihi ya watoto hutumika kuingilia katika maisha ya watoto kwani kila jamii huchukulia kuwa utoto ni hatua muhimu katika maisha ya binadamu. Anasema kuwa fasihi yoyote ya watoto huwa na itikadi na hivyo hutumika kama mwongozo wa mtoto katika kumfunzia maadili na thamani ya jamii husika. Mara nyingi mambo ambayo hutokea katika jamii huwa yanaandikiwa watu mbalimbali wakiwemo watoto.

Fasihi ya watoto inatambulika kutokana na sifa maalumu zinazoitofautisha na aina nyingine za fasihi. Sifa kuu ya fasihi ya watoto ni kuwa inalenga hadhira ya watoto. Nodelman & Reimer (2003) wanaeleza kuwa fasihi ya watoto ni aina ya fasihi ambayo kimsingi hadhira yake ni watoto. Naye Bakize (2014) anatoa maelezo sawa na haya lakini kwa kufafanua watoto hasa ni akina nani. Anaeleza kuwa, fasihi ya watoto ni fasihi maalumu inayolenga watu ambao wana

umri ulio chini ya miaka kumi na minane. Hivyo, istilahi ‘Fasihi ya Watoto’ inatokana na uainishaji wa fasihi kwa kuzingatia hadhira. Hata hivyo, chukulizi iliyopo katika fasili hizi ni kuwa, fasihi hii ya watoto imetungwa na watu wazima. Katika miaka ya 2000, watoto wameanza kutunga fasihi yao. Kuna vitabu kadhaa vya hadithi vilivyochapishwa ambavyo vimetungwa na watoto wenyewe wakiwaandikia watoto wenzao.

Kwa mujibu wa Lynch Brown na Carol (1999), tanzu hizo ni kama vile masimulizi ya hadithi, nyimbo za watoto, mashairi ya watoto, semi kama vile vitendawili na maigizo mepesi yanayowalenga watoto. Tanzu hizi zinahusisha fasihi simulizi ya watoto. Tanzu za fasihi andishi ya watoto ni kama vile vitabu vya hadithi za watoto wa viwango mbalimbali kiumri, mashairi mepesi ya watoto na tamthilia. Lundin (2004) anaeleza kuwa, fasihi ya watoto inaendelea kupanuka na kujumuisha filamu za watoto na vipindi vya redio na televisheni vya hadithi za watoto. Ingawa utafiti huu unarejelea fasihi ya watoto kwa jumla, hasa ulichunguza vitabu vya hadithi za watoto kama utanzu wa fasihi andishi ya watoto.

2.0 MATOKEO

2.1 Sifa za Kiwahusika

Lynch-Brown na Carol (1999) wanaeleza kuwa wahusika ni ‘waigizaji’ katika kazi ya fasihi. Naye Wamitila (2016) anaboresha fasili hii kwa kutoa kauli kuwa wahusika ni viumbe katika hadithi. Mwanafasihi huwabuni wahusika na kuwaweka katika mandhari ambayo yatafanikisha ufikiaji wa maudhui anayokusudia kutokana na vitendo anavyowafanyisha wahusika, maneno anayowasemesha na jinsi anavyofanya watagusane. Bakize (2014) anaeleza kuwa

ingawa hadhira ya watoto huvutiwa na hadithi zenye wahusika wanyama, wengi wao hupendelea hadithi kuhusu binadamu hasa zile zenye wahusika wa rika lao. Ikiwa hadithi ni ya wahusika wanyama huvutiwa nayo hasa ikiwa wale wanyama wanatenda matendo ya kibinadamu na hivyo kuwakilisha watu ambao wasomaji wanaweza kujinasibisha nao.

Ni muhimu hadithi iwe na wahusika mseto wa wavulana na wasichana na kadri iwezekanavyo isawiri usawa wa kijinsia ambapo hakuna mhusika anayesawiriwa kama duni kutokana na jinsia yake. Inapendekezwa na wataalamu kama vile Lynch-Brown na Carol (1999) kuwa wahusika wakuu ambao ni watoto wawe na umri unaolingana na wa watoto wanaolengwa katika hadithi husika. Bakize (2014) anaendelea kueleza kuwa, japo fasihi hii huhusisha wahusika wa aina nyingine wakiwemo wanyama, mazimwi na hata watu wazima hapa na pale, wengi wa wahusika hasa wahusika wakuu huwa ni watoto wenyewe ili kuweza kuvutia hadhira lengwa.

Sungura Mpanda Ngazi ni hadithi ambayo imesukwa kwa kutumia wahusika wanyama. Kulingana na Bakize (keshatajwa) watoto huvutiwa sana na hadithi zenye wahusika wanyama. Watoto hufurahishwa na hadithi zinazorejelea wanyama ambao huchukua nafasi ya binadamu na ambao watoto wanaweza kujinasibisha nao.

Sungura Mpanda Ngazi ni hadithi iliyotumia wahusika wanyama. Wanyama hawa wanakabiliwa na njaa wasipate chochote cha kula. Hata hivyo, kuna maembe kwenye mwembe mrefu sana. Ni baada ya kutafakari, Sungura anaibua wazo la kuunda ngazi ili apande juu kuwaangushia wanyama wenzake maembe. Anapofika juu, sungura

anakulamaembe na kuwasahau wanyama wenzake wanaomsubiri chini ya mwembe.

Sungura kwa sababu ya tamaa anapopanda anasahau wanyama wengine. Swara anateta “*Sisi tulikusaidia kwa roho safi upande. Tulitarajia utatusaidia kwa kutuangushia maembe mabivu. Hata maembe mabichi umekataa katakata kutuangushia. Sasa umetutema kama masuo*”. Ngiri aliongezea “*Ndugu Sungura hata kama umefika huko kileleni, kumbuka huwezi kukaa mwembeni daima. Natumai unakumbuka, mpanda ngazi hushuka.*”

Sungura Mpanda Ngazi (uk16).

Mwandishi kwa kutumia wahusika wanyama wanaowavutia watoto amefanikiwa kuwasilisha dhamira yake kwa watoto. Mwandishi anadhamiria kufunza watoto athari za tamaa. Umuhimu wa kushirikiana katika jamii ni suala ambalo ni muhimu kwani Sungura asingeweza kutengeneza ngazi akiwa pekee yake. Sungura anapokosa kuwapa wanyama wenzake maembe wanaamua kuondoa ngazi iliyomwezesha Sungura kupanda, jambo linalosababisha kifo cha Sungura. Ama kwa kweli mwandishi amefanikiwa kuwafunza watoto pamoja na watu wazima wanaosoma kazi hii kuwa, tamaa mbele mauti nyuma.

2.2 Sifa za Picha

Picha katika hadithi za watoto ni kipengele cha mtindo. Mwandishi hutumia picha kama nyenzo ya kufikisha ujumbe kwa watoto wanaolengwa. Lynch-Brown na Carol (1999) wanaelekeza kuwa picha katika fasihi ya watoto zihusishe jinsia zote mbili yaani kike na kiume ili watoto wote wanaosoma waweze kuvutiwa na hadithi zenyewe kwa kujiona ndani mwa hadithi. Bakize (2014)

naye anaeleza kuwa picha zinafaa ziambatane na kiwango cha hadhira ya watoto wanaolengwa kusoma hadithi husika. Kwa mfano, kitabu kinachokusudiwa kusomwa na watoto wa miaka kumi kiwe na picha zinazosawiri watoto wa miaka kumi.

Katika hadithi ya *Sungura Mpanda Ngazi* ukurasa wa pili mwandishi amechora picha ya mwembe wenye maembe mengi mabivu na mengine mabichi. Kuna wanyama kama vile fisi anayetokwa na mate kwa ajili ya tamaa. Fisi anatoa wazo kuwa watafute mawe wapige yale maembe na yale ya kwanza kuanguka fisi anapendekeza yawe yake. Wengine wanamcheka kwa tamaa ya kujifikiria kwanza. Kutokana na picha hizi mwandishi amefanikisha dhamira yake kwani kupitia kwa picha hizi zinazowavutia walengwa yaani watoto huwavutia na kuwa na shauku ya kutaka kujua kinachozungumziwa katika nakala hiyo. Kuna picha ukurasa wa saba unaoashiria ushirikiano kati ya wanyama hawa. Wote wamebeba miti ili kufanikisha pendekezo la *Sungura* la kutengeneza ngazi ya kuwawezesha kupata maembe.

Katika ukurasa wa kumi na mbili kuna picha ya *Sungura* ambaye ameanza kula maembe na kuwasahau wenzake. Macho ya wanyama wenzake yanamtazama. *Sungura* anangusha ganda baada ya kula huku wanyama wengine wakifikiria kuwa ni embe. Wanang'ang'ania kabla ya kugundua kuwa lilikuwa ganda. Katika ukurasa wa 21 wanyama wanakasirika na kuharibu ngazi iliyomwezesha *Sungura* kupanda kisha wakaondoka. Matokeo yake yamesawiriwa na mwandishi katika ukurasa wa 26 ambapo *Sungura* anajuta na majuto ni mjukuu baada ya kugundua bila shaka kuwa mpanda ngazi sharti ashuke. *Sungura* anaangamia kutokana na tamaa yake.

2.3 Sifa za Rangi

Matumizi ya rangi ni kipengele cha mtindo katika fani kwa kuwa ni nyenzo inayotumiwa na mwandishi wa hadithi kuwasilisha ujumbe kwa mtoto msomaji. Lynch-Brown na Carol (1999) wakiandika kuhusu rangi katika fasihi ya watoto wanasema kuwa rangi inachangia mvuto na hisia za mtoto katika kitabu. Matundura (2007) anaweka wazo hili katika muktadha wa matumizi na kueleza kuwa hadithi za watoto huwa na picha zenye rangi za kuvutia. Picha hizi huwasilisha ujumbe kwa mtoto kwa njia ya kutazama badala ya kusoma masimulizi. Ngugi (2014) anakua hoja hii na kueleza kuwa mbali na picha katika fasihi ya watoto kuwa angavu na yenye mvuto, rangi ya karatasi na utoaji wa kitabu kizima ni muhimu. Rangi ya karatasi pia inafaa iwe angavu na rangi zilizotumiwa ziwe na uhalisia.

Katika *Sungura Mpanda Ngazi*, picha zote ni za mazingira yale yale ambapo ni mahali chini ya mwembe, rangi ya kijani kibichi ya mwembe imetumika kuonyesha hali halisi ya mazingira yanayomzunguka msomaji. Rangi ya samawati, nyekundu na kijivu zimetumika ili kumvutia msomaji na kumpa mnato wa kutaka kusoma kazi hii ya *Sungura Mpanda Ngazi*. Kadhalika, picha katika *Sungura Mpanda Ngazi*, zina msisitizo wa rangi ya kijani kibichi. Rangi hii inahusishwa na majani yaliyo katika mazingira ambayo yana mvua ambayo inanawirisha majani yakaendelea kuwa na rangi hiyo inayohusishwa na ustawi wa kilimo. Usawiri huu unampa msomaji ambaye ni mtoto taswira kamili ya mazingira anamoishi na hivyo kuelewa kwa upesi kwa mtoto anayesoma kazi hii.

Katika jalada la hadithi ya Sungura Mpanda Ngazi mada hii imeandikwa kwa herufi kubwa na kwa rangi ya kuvutia ya manjano. Mtoto atavutiwa na rangi hii na kutaka kusoma nakala hii. Mwandishi vilevile, ametumia rangi nyekundu kuisitiza maneno fulani. Kwa mfano ukurasa wa 5 mwandishi amekolesha msemu “waliwaza na kuwazua” kuonyesha jinsi ambavyo wanyama hawa walikuwa na tatizo mbele yao la kubaini njia ya kupata maembe kutokana na njaa iliyosababishwa na kiangazi. Kila nambari ya ukurasa imekoleshwa rangi nyekundu hii ni rangi mojawapo zinazowavutia watoto na kuwawezesha kusoma hadithi.

2.4 Sifa za Kimuundo

Pinnel na Fountas (2006) wakieleza jinsi vitabu vya fasihi ya watoto vinavyofaa kuandikwa, wanaeleza kuwa vinafaa kuwa vifupi na sentensi pia ziwe fupi na zenye miundo sahili ili ujumbe uweze kueleweka moja kwa moja na bila matatizo kwa kuwa urazini wa watoto huwa mdogo. Aidha, anwani fupi ni bora kuliko anwani ndefu kwa vile hukumbukika kwa wepesi. Mtoto ataweza kukumbuka haraka hadithi aliyosoma ikiwa atakumbuka anwani. *Sungura Mpanda Ngazi* ni anwani iliyo na maneno matatu tu.

Hii inasaidia mtoto kukumbuka anwani hii kwa wepesi. Mada ya fasihi ya watoto pia inapaswa kuwa ya kuvutia. Mwandishi anapoipa hadithi mada ya *Sungura Mpanda Ngazi* inamvutia msomaji na kumpa taharuki ya kutaka kujua mbona kwa nini Sungura apande ngazi. Aidha, ni nini kinachofanyika baada ya kupanda ngazi. Ni kutokana na mvuto wa kutaka uvumbuzi wa maswali haya mwandishi anafanikisha dhamira yake mtoto anaposoma na kuona tamaa ya Sungura inayomfanya kusahau wanyama wenzake

waliomwezesha kupanda mwembe kwa kumtengenezea ngazi. Matokeo ya tamaa ya Sungura yanasababisha kifo chake.

Sentensi alizotumia mwandishi wa *Sungura Mpanda Ngazi* ni sahili. Kwa mfano ukurasa wa 13 aya ya pili. “*sungura alimjibu kwa maringo, “Maembe ni yangu. Hakuna mkataba wa maelewano tulioandikiana kuwa nikiwa juu niwaangushie maembe.” Wanyama hawakuamini maneno ya sungura. Walifikiri wanaota mchana. Swara akamwuliza Sungura, “Ati wasema nini?” Sungura akajibu kwa madaha zaidi, “kama masikio yenu yana pamba, itoeni ili msikie vizuri. Nimesema na ninarudia, maembe ni yangu. Hakuna mkataba wa maelewano tulioandikiana kuwa nikiwa juu niwaangushie maembe.”* Katika kifungu hiki ni dhahiri kuwa idadi kubwa ya sentensi alizotumia mwandishi katika kazi hii ni

sentensi sahili. Mwandishi ana ufahamu kuwa watoto hawana urazini wa kuelewa sentensi ndefu kama ambatano na hivyo kutumia sentensi sahili kurahisisha mawasiliano yake na mtoto.

2.5 Sifa za Kimsamiati

Kilichochunguzwa kuhusu msamiati hapa ni kiwango cha msamiati uliotumika katika hadithi za watoto zilizoteuliwa. Ngugi na Nabea (2011) watoa hoja kuwa ili vitabu vya hadithi za watoto viweze kufanikiwa, lazima viwe sahili kifani na vya moja kwa moja kulingana na umri wa watoto wanaolengwa kuvisoma. Kimsamiati, lugha ya fasihi ya watoto huwa na wepesi unaotegemea kiwango cha ukuaji wa watoto kiumri na pia kiakili ili mtoto atakayesoma aweze kuifuata hadithi na kufikiwa na ujumbe wake kwa wepesi. Hadithi ya *Sungura Mpanda Ngazi* imetumia msamiati sahili kuwasilisha ujumbe na dhamira ya mwandishi. Kwa

mfano: maelezo ya mwandishi ukurasa wa kwanza ni wa moja kwa moja. *Wanyama walikuwa wamekusanyika chini ya mwembe. Mwembe ulikuwa na maembe mabivu na mabichi. Lakini maembe yaliyowavutia wanyama zaidi ni yale mabivu.*

Hata hivyo, hawakuwa na namna ya kuyafikia. Mwembe ulikuwa mrefu ajabu. Mwembe ulikuwa na utelezi. Kila mnyama aliyekaribu kuukwea, aliteleza na kuanguka. Nusura wakate tamaa. Ilikuwa ni kama kuwa na wali, kisha ukose kijiko. Wanyama kama fisi walidondokwa na mate walipoona maembe mabivu yakining'inia kwenye mwembe. Fisi alijaribu kuukwea mwembe. Aliteleza na kuanguka. Aliumia mguu wake wa mbele. Alianza kutembea akichechemea.

Maelezo haya ni ya kisahili. Msamiati uliotumika ni rahisi kueleweka na mtoto anaposoma kazi hii. Wepesi wa lugha humwezesha mwandishi kuwasilisha dhamira yake kwa upesi kwani watoto huelewa hadithi kwa upesi. Misamiati na mtindo uliotumika ni wepesi. Msemo kama vile, wanyama karibu wakate tamaa ni rahisi kueleweka na watoto kwani unaelezea jinsi wanyama walivyoshindwa kuukwea ule mwembe kupata maembe.

2.6 Sifa za Kimandhari

Mandhari, kama wanavyofasili Lynch-Brown na Carol (1999), ni mahali na wakati wa tukio. Wanaeleza kuwa mandhari ya hadithi za watoto aghalabu huwa ni mazingira ambayo yanahusishwa na shughuli au matendo ya watoto na maisha yao ili watoto halisi wanaosoma hadithi husika waweze kujitambulisha nazo. Mazingira haya ni kama vile shuleni, nyumbani, uwanjani na njiani. Haya ni mandhari yanayofahamika kwa urahisi na watoto kwa kuwa watoto mara nyingi huwa katika

shughuli za nyumbani au za shuleni. Mwandishi wa *Sungura Mpanda Ngazi* amezua mandhari ya shamba. Mandhari ambayo kila mtoto anayafahamu kwani nyumbani kuna mashamba ambayo hutumiwa kulimia mimea na mitunda mbalimbali kama vile maembe. Mandhari aliyochora mwandishi wa *Sungura Mpanda Ngazi* ni mazingira yanayomvutia mtoto. Watoto hufurahi kwenda shambani kula matunda. Mandhari haya humvutia msomaji na kumpa mvuto wa kusoma kwani mandhari yaliyowasilishwa kwa mtoto ni halisi. Ukurasa wa kwanza tunaarifiwa kuwa wanyama walikuwa wameketi chini ya mwembe ambao ulikuwa na maembe mabivu na maembe mabichi.

3.0 HITIMISHO

Katika makala hii, nduni za fasihi ya watoto zimechunguzwa, kubainishwa na kufafanuliwa. Makala imefafanua dhana ya fasihi ya watoto na nduni za fasihi ya watoto. Mjadala katika makala hii umebainisha kuwa lazima fasihi hii iwe inaonyesha matendo na maisha ya mhusika kinaganaga, mhusika awe anatia hamasa na lazima iwe inaburudisha. Makala haya yameweka wazi nduni za fasihi ya watoto zinazotumika kubainisha fasihi ya watoto amabazo ni pamoja na; Sifa zawahusika; ni muhimu hadithi iwe na wahusika mseto wa wavulana na wasichana na kadri iwezekanavyo isawiri usawa wa kijinsia ambapo hakuna mhusika anayesawiriwa kama duni kutokana na jinsia yake. Sifa za picha; picha katika hadithi za watoto ni kipengele cha mtindo. Mwandishi hutumia picha kama nyenzo ya kufikisha ujumbe kwa watoto wanaolengwa. Sifa za rangi; matumizi ya rangi ni kipengele cha mtindo katika fani kwa kuwa ni nyenzo inayotumiwa na mwandishi wa hadithi kuwasilisha ujumbe kwa mtoto msomaji. Sifa

za kimuundo; sifa za kimsamiati na sifa za kimandhari zimefafanuliwa kufanikisha malengo ya makala hii.

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Tathmini ya riwaya teule za S.A. Mohammed katika kutetea haki za watoto

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IKISIRI

Haki za watoto ni suala ambalo limepewa uzito katika jamii mbalimbali ulimwenguni. Umoja wa kimataifa katika mwaka wa 1948, ibara ya 25 ulitambua utunzaji maalum wa mama na mtoto katika jamii. Watoto walipewa nafasi ya kuhutubia umoja huo kwa mara ya kwanza katika mwaka wa 2002 kwenye makao makuu ya umoja huu mjini Newyork. Kutokana na shinikizo za kimataifa na mashirika mbalimbali yanayotetea haki za watoto, serikali za ulimwengu zimeweka vipengele maalum za kikatiba za kulinda watoto. Nchini Kenya sheria maalum kuhusu haki za watoto ilipitishwa katika mwaka wa 2001. Sheria hii inamfafanua mtoto kama binadamu yeyote aliye chini ya umri wa miaka kumi na minane. Aidha sharia hii inatetea haki za watoto na kupiga marufuku unyanyasaji wowote dhidi yao. Inatoa haki kama vile elimu, afya, malezi bora, haki dhidi ya ajira ya watoto, haki ya kulindwa wakati wa vita, haki ya kulindwa dhidi ya matumizi ya dawa za kulevya, haki ya kucheza na kupewa nafasi ya kupumzika, utunzaji wa watoto wenye ulemavu miongoni mwa mengine. Sheria hii imeendelea kuimarishwa na kuhusisha vipengele vingine muhimu hasa baada ya katiba mpya ya mwaka

wa 2010 nchini Kenya. Haki za watoto ni suala ibuka lililopewa kipaumbele na wanajamii wote. Hatuwezi kuzungumzia haki za binadamu bila kugusia haki za watoto. Kutokana na mkabala huu, wanafasihi wengi pia wamejhusisha na maandishi mbalimbali yanayohusu haki za watoto. Makala hii inalenga kuchunguza jinsi riwaya za S. A. Mohammed zinavyoangazia haki za watoto na kuwalinda dhidi ya unyanyapaa. Mtaalamu huyu ni miongoni mwa wanariwaya wa visiwani ambao wameendelea kuacha taathira kubwa katika utanzu wa riwaya ya Kiswahili. Said A. Mohamed ameandika riwaya nyingi katika vipindi tofauti. Kazi nyingi za Mohammed zimekuwa na maudhui mengi yaliyohusu unyanyasaji na utetezi wa haki za watoto kutokana na utafiti wetu wa awali. Riwaya zake zilizochapishwa kufikia uandishi wa makala hii ni: Asali Chungu (1977), Utengano (1980), Dunia Mti Mkavu (1980), Kiza Katika Nuru (1988), Tata za Asumini (1990), Babu Alipofufuka (2001), Dunia Yao (2004), Nyuso za Mwanamke (2010), Mhanga Nafsi Yangu (2012), Mkamandume (2013), Kamwe si Mbali Tena (2014) na Wenye Meno (2018). Utunzi wa S. A. Mohammed unaweza kuangaliwa katika awamu mbili. Awamu ya

kwanza ni kazi zake zilizojifunga kwenye masuala ya jamii yake ambapo aliihakiki na kubainisha migogoro iliyotokota ndani. Kazi hizi zimejifunga katika ufafanuzi wa hali kama inavyobainika katika ulimwengu halisi na masuala ambayo yanaweza kudhihirika kihistoria. Riwaya zake za awamu ya kwanza ni pamoja na Asali Chungu, Utengano, Dunia Mti Mkavu, Kiza Katika Nuru na Tata za Asumini. Katika awamu ya pili anaandikia masuala ambayo yanahusu ulimwengu halisi na ulimwengu wa kiajabu ambapo mpaka wake hauwekwi bayana. Baadhi ya kazi hizi ni pamoja na Babu alipofufuka, Mkamadume, Kamwe si mbali tena na wenye meno Makala hii itajifunga katika kazi za awamu ya kwanza kwa kurejelea riwaya zake tatu mathalan: Asali Chungu, Kiza Katika Nuru na Tata za Asumini. Riwaya hizi ziliandikwa katika miongo mitatu tofauti na zinaweza kutupa taswira kamili kuhusu haki za watoto na namna jamii imekuwa ikizishughulikia katika vipindi mbalimbali vya kihistoria.

Maneno muhimu: Haki za watoto, Utanzu, Riwaya, Taswira, unyanyapaa

1.0 UTANGULIZI

Mafanikio ya mtu mzima yanachangiwa na malezi ya utotoni pamoja na mwingiliano wa mazingira na jamii yake. Makuzi na maendeleo ya mtoto yanachangiwa na wazazi, walezi, familia na mfumo mzima wa jamii. Mtazamo au mawazo ya jamii kuwahusu watoto, yaani kile kinachoweza kuelezwa kama itikadi ya jamii kuwahusu watoto ni jambo la kimsingi katika maendeleo ya jamii. (Wamitila 2008: 324). Aidha, watoto ni kiungo muhimu katika jamii na ndio tegemezi la ujenzi wa taifa lolote hivyo sharti walindwe na kutunzwa ipasavyo. (Katiba ya Kenya 2010, ibara ya 53).

Fasihi ya Kiswahili ni miongoni mwa fasihi ambazo zimechangia katika kuwasilisha masuala tofauti tofauti ya kijamii. (Sabula na Sangili, 2019). Mojawapo ya masuala ya

kimsingi yanayoangaziwa ni suala la haki za watoto. Hii inatokana na sababu kuwa kuna uhusiano kati ya jamii na fasihi hivyo fasihi ni njia mojawapo ya kumulika matatizo yanayoikumba jamii yakiwemo tabia nchi, ukosefu wa chakula, udhalilishaji wa watoto na mengineyo. Kwa mujibu wa Warren na Welleck (1973), fasihi ni kielelezo cha jamii. Kwa hivyo, fasihi huwa na mshikamano mkubwa na asasi za jamii na hivyo masuala mengi ya kifasihi huwa masuala ya kijamii. Mwandishi vilevile huwa ni zao la jamii na huwa anaongozwa na hali halisi ya maisha ya wakati wake na kuzingatia katika utunzi wake. Mwengo wa makala hii basi ni kutathmini jinsi mwandishi S. A. Mohamed anavyohakiki masuala mbalimbali katika jamii yake hususan suala la ujitokezaji wa haki za watoto. Tutahoji jinsi suala la haki za watoto linavyoakisika katika riwaya teule za Asali Chungu, Kiza Katika Nuru na Tata za Asumini.

2.0 KIUNZI CHA NADHARIA

Makala hii iliongozwa na nadharia ya uhalisia wa kijamaa iliyoasisiwa na Maxim Gorky (1934). Wataalam wengine wanaohusishwa na nadharia hii ni George Lukacs, Zhadnov na wengineo. Istilahi 'Uhalisia' ilitumika nchini Ufaransa kwa mara ya kwanza mwaka wa 1850. Hegel (1971), alitumia istilahi hii kufafanua kazi za sanaa zilizo na wahusika ambao msukumo wao uliongozwa na hali ya kisaikolojia iliyowazunguka. Wataalam wengi wanaohusishwa na dhana hii ya uhalisia wa kijamaa, walishikilia kuwa jukumu la mtunzi ni kudhihirisha ukweli jinsi ulivyo na pia kukashifu maovu yanayotokea katika jamii. Mwandishi anastahili kuchora taswira ya jamii yake pamoja na kuwasawiri wahusika na mandhari yanayoakisi jamii ya wakati wake.

Kutokana na kukithiri kwa ubepari katika maeneo mengi ya ulaya ambayo yalikuwa kiini cha uhalisia, maskini walitumiwa kama nyenzo ya kuzalisha mali huku faida yote ikiishia mikononi mwa mabwenyenye. Jambo hili lilizua mgogoro baina ya tabaka la chini la

wachochole na tabaka la juu lililohodhi utajiri na mamlaka. Mgogoro huu hutokea kwa sababu kila mara kuna tabaka tawala na tabaka tawaliwa. Hivyo, inalazimu kuwa na mapinduzi dhidi ya njia za kuzalisha mali ambazo zinahimili unyanyasaji. Mapinduzi haya yanajenga matumaini ya kuwepo kwa jamii mpya inayoongozwa na usawa, (Eagleton, 1976). Mvutano baina ya tabaka la wanaonyonya na tabaka la wanaonyonywa ndio ulizua kuibuka kwa nadharia ya uhalisia wa kijamaa pale ambapo wanajamii walibaini kuwa matakwa ya wanajamii yanajengeka zaidi kwenye nguvu za kiuchumi na sio katika majaliwa wala fikra, (Khaemba, 1999). Kwa mujibu wa ufafanuzi huu, nadharia ya uhalisia wa kijamaa ilitumika kama zana ya kuleta usawa hivyo kutatiza uhalisia wa maisha. Kutokana na uchanganuzi tulioutoa kuhusiana na nadharia ya uhalisia wa kijamaa, ifuatayo ni baadhi ya mihimili ya nadharia hii:

Binadamu huonyeshwa kiuyakinifu. Wahusika ambao hutumiwa kama vipaza-sauti vya watunzi hupuliziwa uhai mathalani wanadamu wa kawaida wanaoishi katika ulimwengu tunaofahamikiwa nao. Ni kwa msingi huu ambapo tunahakiki riwaya tatu teule za S. A. Mohamed ambazo zinarejelea masuala ya jamii yake kama vile haki za watoto na kuwasawiri wahusika katika mazingira halisia ya kijamii.

Pamoja na kusawiri matukio kihistoria, wahusika hutekeleza matendo yao kitabaka. Hufanya hivi kimaksudi au bila kufahamu. La mno ni kwamba tabaka la wanyonge hujifungata masombo kujipa mamlaka ya nguvu za kiuchumi. Katika riwaya ya Asali Chungu, wahusika kama Bwana Zuberi na Bi. Amina wanawakilisha tabaka la juu linaloendeleza dhuluma dhidi ya tabaka la chini. Vilevile, Bwana Juba wa Kiza Katika Nuru amesawiriwa kama bwenyenye anayeendeleza dhuluma dhidi ya wanyonge. Mfumo wa utawala unaowakilishwa na viongozi kama Bwana Zuberi na Bwana Juba

bila shaka utawaathiri watoto wanaojipata katika familia za wazazi ama walezi wa tabaka la chini lililotawaliwa na umaskini.

Uhalisia wa kijamaa huzingatia maslahi ya makabwela. Hawa ni mafukara wa ulimwengu wenye nia ya kuimarisha udikteta wa makabwela.

Wahusika wa kimaendeleo: Hawa ni wahusika wanaonua kuipindua na kuibadilisha hali yao ya maisha. Ni wahusika wenye nia ya kumiliki njia kuu za kuzalisha mali katika jamii yao.

Huonyesha matumaini juu ya kizazi cha binadamu. Hii inamaanisha kwamba mtu atakuwa mshindi au ni mshindi dhidi ya unyonyaji na unyanyasaji wa aina yoyote.

Lugha inayotumiwa katika uhalisia wa kijamaa inaendeleza malengo na mapendekezo ya walio wengi katika jamii.

3.0 KUMHUSU MWANDISHI SAID AHMED MOHAMED

Mohamed alizaliwa mwaka wa 1947 kisiwani Zanzibar mjini. Alijiunga na chuo cha Ualimu cha Nkurumah mjini Zanzibar mwaka wa 1966. Alianza kufundisha katika shule za msingi na secondari mnamo miaka ya 1969 – 1974. Alifundisha masomo ya Bayalojia, Hesabu, Kemia na Kiswahili. Wakati huo huo alikuwa akiandika hadithi fupi katika vituo vya BBC na Deutsche Welle; mashirika ya Uingereza na Ujerumani mtawalia. Alijiunga na kidato cha 5 na 6 ambapo alikuwa amepanga kufanya masomo ya sayansi lakini ukosefu wa vifaa vya utekelezi ukampelekea kufanya somo la sanaa. Mwaka wa 1976 alijiunga na Chuo kikuu cha Dar es Salaam ambapo alihitimu kwa shahada ya B. A. Baadaye alihitimu shahada ya Uzamili ambapo alisomea isimu tekelezi.

Mohamed alifundisha katika idara ya Kiswahili chuoni Dar es Salaam kwa muda mfupi kabla ya kuelekea Chuo kikuu cha Leipzig Ujerumani ambapo alihitimu kwa shahada ya uzamifu mwaka wa 1985. Alisafiri nchini Kenya kufundisha Kiswahili katika Chuo kikuu cha Moi mwaka wa 1987 na baadaye katika Chuo kikuu cha Nairobi mwaka wa 1990. Baadaye alienda Ujapani na kujiunga na chuo cha masomo ya kigeni kule Osaka ambapo alipanda ngazi na kuwa profesa. Mnano 1997 alijiunga na chuo kikuu cha Bayreuth nchini Ujerumani hadi kustaafu kwake.

Mohamed ni mwanzuoni na mwandishi hodari ambaye amechangia katika takribani tanzu zote za fasihi andishi zikiwemo ushairi, tamthilia, hadithi fupi, riwaya, kazi za wototo na pia vitabu vya shule na vyuo. Kazi zake ni pevu zinazoenziwa sio tu katika Afrika Mashariki na Kati bali popote pale Kiswahili kinaenziwa. Hii ni kwa sababu ya ubora na wingi wa kazi zake ambazo huvutia kimtindo, kimuundo, kiwahasika na kimsuko.

3.1 UCHAMBUZI WA RIWAYA YA ASALI CHUNGU

Katika riwaya ya Asali Chungu (1977), tunasawiriwa Bwana Zuberi ambaye ni kabaila anayemiliki ardhi na pia ofisa wa utawala katika enzi ya ukoloni wa Waingereza. Sifa kuu za Zuberi ni kwamba ni fisadi asiyewajibika kazini mwake. Anatumia muda wake mwingi kuwatongoza wanawake. Bwana Zuberi ni bwana shamba dhalimu ambaye anamlazimisha mhudumu wake wa kike kulala naye. Mwandishi anadhihirisha udhalimu wa mfumo katili wa utawala ambapo Waingereza walitawala Zanzibar kwa kushirikiana na makabaila wa Kiarabu kama Zuberi.

Katika mfumo huu wa utawala, jamii imegawika katika matabaka. Tabaka la juu ni la mabwana shamba na lile la chini la watumishi wao. Watumishi hawa ni wategemezi wa mabwana shamba, hawana

haki zozote na maisha yao ni dhiki tupu. Watoto wanaozaliwa katika familia za tabaka la chini kama Dude wanaishia kukata tamaa maishani. Uk. 32, Dude anayaona maisha kama mashaka na kwake siku ya kufa inakaribia. Toka alipozaliwa, Dude alitwika masaibu ya ulimwengu na alikuwa majeruhi wa mateso, madhila na sulubu. Kwa hakika, analazimika kuacha masomo katika darasa la sita kwa sababu ya ukosefu wa karo.

Hatimaye tunaonyeshwa jinsi ambavyo tabaka la wanyonge linavyoingana kutekeleza mapinduzi ili kudai haki zao kwa nguvu. Kundi la watu lenye hamaki na silaha kali linamkabili Bwana Zuberi na familia yake. Nyumba ya Zuberi inaishia kutiwa moto ambapo yeye na mkewe Amina wanaangamia pamoja na kibaraka wao Daudi.

3.2 UCHAMBUZI WA RIWAYA YA KIZA KATIKA NURU

Riwaya hii inaanzia katika ofisi ya Bwana Juba ambapo panazuka mtafaruku kati ya bwana Juba na mwanawe Mvita. Bwana Juba ndiye mwajiri wa Mvita mbali na kuwa baba yake. Anamwachisha Mvita kazi baada ya Mvita kuanzisha harakati za kupinga dhuluma na unyonyowaji wa tabaka la chini la wanyonge. Bwana Juba anawakilisha tabaka linalomiliki mamlaka na uwezo mkubwa wa kifedha.

Mvita anaendelea kuwa mpinzani wa baba yake kisiasa akishirikiana na mkewe Salma hadi pale tunapomwona Bw. Juba akimtuma Shazia kumwangamiza Mvita. Baada ya kumuua Mvita, bwana Juba anavamiwa na mkewe Bi. Kudura na mwanawe Mbishi na kuuawa. Bi. Kudura na Salma mkewe Mvita wanatiwa gerezani lakini Bi. Kudura anajitoa uhai mle korokoroni. Salma yuko gerezani kwa sababu ya kifo cha mumewe Mvita ambacho amesingiziwa. Wafuasi wa Mvita wanamtembelea Salma gerezani na kumpa moyo kwamba angeachiliwa na wangali wafuasi wake.

3.3 UCHAMBUZI WA RIWAYA YA TATA ZA ASUMINI

Nguli katika riwaya hii ni mwanafunzi katika chuo kikuu kwa jina Asumini. Amelelewa katika mazingira magumu ambayo yanamfanya ashindwe kutangamana na wanafunzi wengine anapofika katika chuo kikuu. Mwishowe Asumini anashindwa kuendelea na masomo yake kwa kulemewa na mgogoro wa kisaikolojia. Tata zilizomo akilini mwake zinamtatiza hadi anashindwa kuchagua kati ya maisha ya kisasa na yale ya zamani aliyousiwa na wazazi wake. Katika utoto wake, Asumini alinyimwa uhuru wa kuhusiana na watoto wenzake na kulazimika kuishi maisha ya utawa.

Anapogura kutoka chuo kikuu, Asumini haendi nyumbani bali anakutana na Zaina ambaye wanaishi pamoja mpaka pale Asumini anapougua ugonjwa wa akili na kupelekwa hospitalini. Anamwandikia mchumba wake Sewa barua na kumwambia vile ulimwengu ulivyomdhulumu. Analalamikia malezi aliyopewa na wazazi wake ambayo yalimpelekea kutatizika kinafsi. Katika barua hiyo, anamshauri Sewa dhidi ya kuwalea watoto wake wa kike jinsi yeye alivyolelewa na wazazi wake.

4.0 TATHMINI YA HAKI ZA WATOTO KATIKA RIWAYA TEULE ZA S. A. MOHAMED

4.1 Haki ya kukua katika mazingira salama.

Njagi, C (2021), anasema kuwa jamii ina jukumu la kuhakikisha kuwa watoto wanakulia katika mazingira yanayowahakikishia usalama dhidi ya magonjwa, njaa, vita na dhuluma nyinginezo. Kauli hii inasisitizwa katika riwaya ya Asali Chungu ambapo mwandishi anaonyesha jinsi watoto wanavyoweza kuvimba kichwa na kupotoka kutokana na tabia wanazoziona katika mazingira wanamoishi. Dude ambaye ni mwana wa Semeni na Baya binti wa Bi. Pili, ni watoto wanaojipata katika mazingira hatari.

Wazazi wao ni walevi kupindukia na makahaba. Wana mazoea ya kuingia na wanaume pale nyumbani na kuwaonyesha wana wao vitimbi. Mfano mzuri ni Dude ambaye anayaona matendo ya mama yake yakitendeka waziwazi machoni pake. Mtoto huyu anavutiwa na tendo hili na kutamani sana kulijaribu. Hatimaye wale watoto wawili (Dude na Baya) wanaishia kushiriki vitimbi walivyoviona kwa wazazi wao. Wazazi hapa wakawa vielelezo wasiofaa kwa wana wao. Kwa njia hii, mwandishi anawatahadharisha wazazi dhidi ya kukipotosha kizazi cha kesho kwa kukipa mwelekeo usiofaa:

“Baya akawa mwanamke na yeye ndiye mwanamume.

Lakini wao hawakudhubutu kutenda dhahiri.

Hawakuwa na uhuru kama wazee wao.

Ilibidi waibieibie mpaka pale wazee wanapokuwa hawapo.

Hapo Baya huwa mke, na Dude huwa mume.” (Asali Chungu 37).

Baadaye watoto hawa wanaishia kuwa raia wasiotegemewa katika jamii kutokana na athari za ulezi wao. Utu uzimani tunakutana na Baya kakata tamaa maishani, lake kubwa ni ulevi kupindukia na kuuza mwili. Tunamwona Dude akishiriki mapenzi na Amina ambaye ni mama zaidi ya rika la mama yake mzazi. Dude anapopata mke kwa jina Shemsa hatulii kabisa licha ya kupendwa sana na mkewe; anampa mimba Latifa ambaye ni dada yake mkewe tena mtoto mdogo kiumri. Hatimaye anaungama Dude kuwa kazaliwa katika mkosi, na maisha ataishi katika mkosi. Hivyo ndivyo alivyoamini. (Asali Chungu 182).

4.2 Haki ya kupendwa na kulindwa

Kila mtoto ana haki ya kupendwa na kutunzwa na wazazi wote. Haki hii inapaswa kuzingatiwa bila kuhusisha tofauti zozote zilizopo baina ya wazazi. (UNICEF, 1989).

Kwenye Kiza Katika Nuru (1988), mwandishi anaonyesha matokeo ya watoto waliotelekezwa na baba yao. Licha ya Bwan Juba kuwa kiongozi mwenye mamlaka na uwezo mkubwa wa kifedha, ameiacha familia yake kuangamia katika lindi la umaskini. Vilevile ametoweka kabisa katika maisha ya watoto wake wanaomhitaji kwa ushauri pamoja na mahitaji ya kimsingi. Kudura-mama yake Mbishi alizipokea kesi za ubishi wa mtoto wake kila wakati. Mbishi aliwahasudu watoto wenzake kwa kutamani vitu vyao ambavyo hakununuliwa na baba mzazi japo alikuwa tajiri aliyenuka pesa. Hivyo maskini aliishia kupigana na wenzake.

Mwandishi anasisitiza umuhimu wa mfumo wa uongozi kuwajibika ili kukielimisha kizazi cha kesho. Vinginevyo watoto wanaopaswa kuwa shuleni huishia kujitafutia chakula kutokana na umaskini uliosababishwa na viongozi mafisadi kama Bwan Juba. Tazama:

“Tena walitokeza kundi la watoto katika kinyang’anyiro

cha vidagaa vilivyowadondoka wavuvi.

Na wengine walisafisha madamu na kugombea uronda

waliobakishiwa.” (Kiza Katika Nuru 1988: 193).

4.3 Uhuru wa kujieleza na kushirikishwa katika maamuzi

Mtoto ana majukumu ambayo anachangia katika jamii yake. Hivyo, ni muhimu kumshirikisha katika maamuzi ya kijamii husani yale yanaomlenga kwa njia moja au nyingine. Aidha, mtoto anapaswa kupatiwa uhuru wa kufurahia na kutangamana na mazingira yake. (Njagi, C. 2021). Mwandishi anashitumu utumwa wa watoto na kuhimiza umuhimu wa watoto kupewa uhuru wa kujijua,

kujielewa na kutangamana na wenzao kadri wanavyokua.

Wazazi wanatahadharishwa dhidi ya kuwa wakali zaidi kwa watoto wao kama inavyoelezwa katika nukuu hii:

“Na malezi ya babaake na mamaake yakawa

malezi na kulemaza wakati mmoja.” (Tata za Asumini 1990: 19)

Asumini alinyimwa utamu na uhuru wa kukua kama watoto wenzake. Analia kwa unyonge wa kunyang’anywa uhuru wake wa kucheza michezo ya utotoni kama watoto wengine wa majirani.

Matokeo ya kulelewa huku kwa Asumini yanabainika wazi anapojipata katika mgogoro wa kisaikolojia wa kujisaka. Asumini hauelewi mwili wake, haielewi nafsi yake na hayaelewi mazingira yake. Hivyo anaingia katika motifu ya safari ngumu ya kujijua ambayo inamtatiza sana kisaikolojia. Mara si moja Asumini anaonyesha tabia za mtu aliyerukwa na akili kutokana na matatizo haya ya nafsi. Upo wakati anatoa rundo la nguo safi na chafu, mpya na kuukuu na kushikilia kuwa alitaka kuzisafisha. Mara Asumini anaitiwa polisi baada ya kumrushia kila mtu mchanga kwenye harusi. Kwenye Disco Asumini anazua vurugu mpaka Disco linafungwa. Polisi wanamkamata kwa wiki moja mpaka daktari anapothibitisha kuwa akili za Asumini hazijatulia. Ni wazi kuwa huyu ni mhusika ambaye anatatizika sana kiakili na matatizo haya yanaweza kuangaliwa kama matokeo ya malezi yake.

4.4 Haki ya elimu

Katiba ya Kenya (2010) kipengele cha 53, inasisitiza kuwa kila mtoto ana haki ya kupata elimu na serikali sharti iweke mipangilio mwafaka ili kuhakikisha kuwa kila mtoto anapata elimu hususani elimu ya msingi. Haki hii inashadidiwa na S. A. Mohamed anaposisitiza umuhimu wa mfumo wa uongozi

kuwajibika katika kukielimisha kizazi cha kesho. Vinginevyo, watoto wanaopaswa kuwa shuleni huishia kujitafutia chakula kutokana na umaskini uliosababishwa na viongozi mafisadi kama Bwana Zuberi na Bwan Juba. Hali hii inampitikia Dude katika Asali Chungu ambapo anakabiliwa na ukosefu wa mahitaji ya kimsingi akiwa mtoto mchanga. Kwa hakika analazimika kuacha masomo katika darasa la sita kwa sababu ya ukosefu wa karo.

5.0 HITIMISHO

Makala hii imeangazia ujitokezaji wa haki za watoto katika riwaya teule za Asali Chungu, Kiza Katika Nuru na Tata za Asumini. Kutokana na matokeo ya uchunguzi, imebainika kuwa S. A. Mohamed anatambua nafasi muhimu ya mtoto katika jamii ya kitaifa na kimataifa na hivyo kuisawiri katika kazi zake. Ameonyesha dhahiri kuwa matatizo yanayowakumba watoto yanapaswa kuelekezwa katika mazingira wanamokulia na zaidi katika jamii pana katika kile anachokiita mfumo wa jamii. Mwandishi anaukashifu mfumo wa jamii ambao unakosa kumwakikishia mtoto usalama wake. Hapana shaka kwamba mtunzi ametoa mchango murua kwa kuangazia mojawapo ya masuala yanayoakisika katika jamii nyingi kama inavyofafanua nadharia ya uhalisia wa kijamaa. Aidha, riwaya zilizochanganuliwa zinaweza kuangaliwa kama viwakilishi vya nyakati na enzi tofauti tofauti na zenye thamani ya kifasihi.

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Ubabedume Katika Tamthilia Ya Bembea Ya Maisha (2022)

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IKISIRI

Mfumo-dume humpa thamani kubwa mwanamume huku ukimdhaliisha mwanamke kwa sababu ya jinsia yake. Imani hii dunishi imo katika itikadi na tamaduni zinazohimiliwa na mfumo wa muundo wa kijamii ambao mwanamume anapewa nguvu na uwezo zaidi dhidi ya mwanamke katika nyanja zote za maisha hususan kiutawala, kiuchumi, kidini, kisiasa na kijamii. Basi, makala hii ililenga kuchunguza jinsi mwandishi wa tamthilia ya Bembea ya Maisha (2022) alivyomsawiri mhusika wa jinsia ya kiume katika kazi yake ili kuweka wazi shughuli za ubabedume zilizojengwa katika mila, itikadi na utamaduni wa jamii husika. Data ya makala ilipatikana kwa kuisoma tamthilia teule kisha kuichanganua kwa kutumia Nadharia ya Ubabedume ambayo hulenga kubainisha nguvu na mamlaka yanayomilikiwa na jinsia ya kiume, hasa kutokana na utamaduni wa jamii husika. Matokeo ya utafiti yalibainisha kuwa mhusika wa jinsia ya kiume amesawiriwa

kama mtegemezi, mrithi wa mali, ameruhusiwa kupata mtoto nje ya ndoa, haruhusiwi kujishughulisha na kazi za nyumbani, anaitwa gumba kwa kutopata watoto na anayejitwika majukumu yote ya nyumbani. Masuala haya yamekithiri katika jamii za leo. Ikiwa nchi zinazoendelea zitapiga hatua katika maendeleo, basi usawa wa kijinsia unahitaji kutiliwa maanani na jamii zote.

Istilahi Muhimu: Usawiri, Mfumo-dume, Taswira, Ubabedume, Jinsia

1.0 UTANGULIZI

Walsh (1997) anasema kuwa uume huhusishwa na uwezo wa mwanamume kuwa na mafanikio kukimu na kutosheleza mahitaji ya familia. Mtaalamu huyu anasema kuwa mwanamume hazaliwi na uume kama sehemu ya viungo vyake bali hujengwa na kukuzwa na utamaduni anamokulia. Vilevile, Connell (2000), anashadidia hili kwa kusema

kuwa ubabedume hutazamwa kwa njia zaidi ya moja kama vile mahusiano ya kijinsia, ukatili, malezi na hata kazi. Kauli hii imejengeka katika misingi kwamba utamaduni ni dhana muhimu na ni uti wa mgongo katika ujenzi na matumizi yake kutegemea jamii husika kwa vile, kila jamii ina utamaduni wake.

Kulingana na Chafetz (1974) na Doyle (1985) ubabedume ujitokeza katika desturi kwa jumla kupitia maumbile, nguvu za kimwili, ushujaa, kufanya kazi na kukidhia familia, kuwa na tajiriba na shari ya kijinsia, ukakamavu, urazini, kutaka makuu, majivuno, uadilifu, ushindani na kuthubutu mambo. Basi, makala haya yalikusudia kubainisha jinsi mwandishi alivyodhihirisha ubabedume katika kumsawiri mhusika wa jinsia ya kiume.

1.1 Wasifu wa Mwandishi Timothy Moriasi Arege

Kwa mujibu wa Kinuthia (2010), Timothy Arege ni mzaliwa wa Kaunti ya Kisii magharibi mwa Kenya. Alisomea kuko huko kabla ya kujiunga na Chuo Kikuu cha Nairobi, ambapo alijipatia shahada ya B.A. (Kiswahili na Sayansi ya Kijamii). Mnamo mwaka wa 1998 alipata shahada ya Uzamili (MA) katika taaluma ya Kiswahili katika Chuo Kikuu cha Nairobi. Katika mwaka wa 2013, alipata shahada ya Uzamifu katika chuo chicho hicho. Mwaka wa 2008/2009, Arege alituzwa kuwa msomi bora na Chuo Kikuu cha Kikatoliki cha Afrika Mashariki, Kenya. Vilevile mwaka wa 2011, Arege alishinda Tuzo ya Fasihi ya Jomo Kenyatta mnamo 2009 kwa kazi yake Kijiba cha Moyo (2009). Kwa sasa Arege ni mhadhiri wa somo la Kiswahili katika Chuo Kikuu cha Kenyatta, Kenya. Tamthilia zake nyingine ni pamoja na Chamchela (2007) na Mstahiki Meya (2009) na Bembea ya Maisha (2022).

1.2 Muhtasari wa Tamthilia ya Bembea ya Maisha

Tamthilia ya Bembea ya Maisha iliandikwa na Timothy Moriasi Arege katika mwaka wa 2022 na kuchapishwa na Access Publishers Limited mjini Nairobi. Tamthilia hii inawahusu wahusika wawili Yona na Sara ambao wanawapata watoto wa jinsia ya kike:- Neema na Asna baada ya kutojaliwa kwa miaka kadhaa. Hata hivyo, jamii inamwona asiye na mrithi kwani watoto hawa si wa jinsia ya kiume. Sara anamsaidia Yona kuwasomesha watoto wao. Neema anapata kazi kule mjini na kuwa wa manufaa kwa wazazi wake. Anatumia pesa zake kugharamia matibabu ya mamake na pia kuwakimu wazazi wake. Hatimaye, msimamo wa Yona kuhusu mila na desturi za jamii yake unabadilika na anaanza kumthamini Sara na Neema aliowadhulumu kabla ya mabadiliko hayo.

2.0 NADHARIA YA UTAFITI

Makala hii imetumia nadharia ya ubabedume. Kulingana na Wells na Holland (2001:2), mwasisi wa nadharia hii ni Robert Bly wa Marekani katika mwaka wa 1991. Nadharia hii inajikita katika maumbo ya vitambulishi vya jinsi ya kiume kwa kuzingatia jamii, maandishi na matukio au maelezo ya kihistoria. Isitoshe, mkondo wa nadharia hii unawania kuhalalisha desturi za jinsia ya kiume na ubabedume. Nadharia hii ilitokana na mwamko wa vuguvugu la wanaume ambalo lilichochea na kazi za Robert Bly na wengine (Chafetz, 1974). Kichocho cha vuguvugu la wanaume kilitokana na uhakiki wa jinsia ya kiume na utawala wa wanamume unaoathiri kila sehemu ya jinsia ya kike pamoja na mageuzi ya miaka ya 1960. Huu ulikuwa wakati wa upeo wa mgogoro wa itikadi za kijamii katika nchi za Marekani ambazo zilihitaji kuzingatia upya majukumu ya kijinsia. Mgogoro huu ulihusu nafasi na majukumu ya kijinsia katika jamii.

Kulingana na mihimili ya nadharia hii, utawala wa mwanamume umehalalishwa

katika kila sehemu ya maisha kwa kusisitiza maumbo ya vitambulishi vya jinsia ya kiume kwa misingi ya jamii, maandishi, matukio na maelezo ya kihistoria (Wells na Holland, 2001). Aidha, wanaume wametawala na kuwa na mamlaka makuu katika jamii kwa kushikilia nafasi za rasilimali zenye thamani katika jamii kama vile kazi, pesa na taasisi za kijamii zenye nguvu kama vile serikali na dini (Collins, 1971). Nadharia hii ilifaa katika kuweka wazi masuala yanayodhihirisha vitendo vya ubabedume kupitia kwa wahusika wa jinsia ya kiume.

3.0 MBINU ZA UTAFITI

Data ilipatikana kwa kusoma tamthilia ya Bembea ya Maisha kisha kuzichanganua kwa kufuata lengo la makala na mihimili ya nadharia iliyotumika.

4.0 MATOKEO YA UTAFITI

Makala haya yalikusudia kubainisha usawiri wa mhusika wa jinsia ya kiume. Matokeo yamedhihirisha kwamba mwandishi amemchora mwanamume ambaye ana sifa zinazohalalishwa na mila na desturi za jamii ya mwandishi. Sifa hizi ni kama vile: mwanamume ni mtegemezi, mrithi wa mali, ameruhusiwa kupata mtoto nje ya ndoa, haruhusiwi kujishughulisha na kazi za nyumbani, gumba kwa kutopata watoto na anayejitwika majukumu yote ya nyumbani.

4.1 Mwanamume kama Mtegemezi

Kulingana na Nadharia ya Ubabedume majukumu katika jamii hugawanywa kiuana. Kuna yale ambayo yametengewa jinsia ya kike na mengine jinsia ya kiume. Mgawanyo huu hudhihirisha namna mamlaka na uwezo hugawanywa kijinsia. Mwandishi wa tamthilia husika amemsawiri mwanamume kama mhusika anayemtegemea mwanamke. Yona analalamika kuwa mkewe Sara hajapika chakula hata ingawa ni mgonjwa. Ijapokuwa Yona anayaelewa haya, kulingana na utamaduni wa jamii yake hawezi

kumsaidia mkewe ila tu kumtegemea kwa majukumu ya nyumbani. Kwa mfano:

Yona: Sara, bado ungali pale pale?

Nyumba hii haifuki walau moshi hata kama chakula ni taabu kwako?

Sara: Yona mume wangu, moshi utafukaje? Mwenzi hapa nilipo kichwa kimeudara mto siku nzima. Wewe unajua ni kwa ajili ya maradhi haya, si kwa uzembe wala raha.

Yona: Ndipo tufe njaa?

Sara: (Akimtaazama usoni.) Sivyo...

Yona: Ndivyo. Njaa haileti shibe

Sara!

Sara:...Miaka yote hiyo nikiwa ningali mzima na afya yangu mbona sikufanya ajizi? Muda wote huo nikipika mimi, nikiandaa na kukukaribisha ule. Iweje leo kazi hiyo inishinde? Yalaumu maradhi (Uk 1).

Suluhisho la Sara lawa nikumwita jirani yake Dina aje kumsaidia kupika kwani hawezi kupata usaidizi wa Yona katika kazi za nyumbani. Sara anasema yafuatayo anapoulizwa kama bado nyumba haifuki.

Yona: Hivi leo nyumba hii haifuki?

Sara: Subiri. Nimempelekea Dina salamu aje akatufanyie chochote. Mwenzi nilivyo hivi mwenyewe hata sijifai kitu. Mwili mzima mfano wa bua.

Yona: Haidhuru. Nitasubiri.

Sara: Hatakawia. Yeye huitika wito haraka (uk 4).

Hatimaye, Dina anaitikia wito wa Sara. Anamwambia Kiwa kuwa:

Dina: Mwanangu sasa mimi ninaondoka. Ninaenda kwa Sara kumsaidia na upishi. Hali yake ile haimwezeshi kufanya chochote. Amenitumia salamu niende kumsaidia lakini kwa kuwa nilikuwa nimebandika sufuria, nikaona heri nimalize upishi wangu (uk 11).

Mazungumzo baina ya Dina na Sara yanaashiria kuwa malezi na makuzi ya Yona hayamruhusu kuingia jikoni ili kumfaa mkewe. Yona anaona heri kuondoka nyumbani badala ya kupika ilhali mkewe ni mgonjwa. Wanasema hivi:

Sara: Ninajua sasa karibu arudi.

Dina: (Anaanza kupika.) Hivi amekwenda wapi?

Sara: Hakusema. Ameondoka tu. Alikuwa amekuja kutoka huko kwa wenziwe kupata chochote lakini akapata mwenyewe nilivyo hoi hata jiko halijaona kiberiti. Ilivyo desturi ya wanaume wetu, naye akataka kujua kwa nini sikumwandalia chochote.

Dina: Haoni hali yako?

Sara: Anaona lakini ninafikiri malezi na makuzi yanamtuma hivyo.

Dina: Wanaume wetu hawa! Hawawezi hata kusaidia kupiga makasia chombo kinapopungukiwa upepo! (Uk 13-14).

4.2 Mwanamume kama mrithi wa mali

Wells na Holland (2001:16) wanadai kuwa nadharia ya ubabedume inawania kuhalalisha desturi za jinsia ya kiume na ubabedume. Wanajamii wanaunga hoja hii wanaposhikilia kuwa mtoto wa kiume ndiye hurithi fimbo ya baba. Mazungumzo baina ya Yona na Sara yanaangazia haya wanaposema yafuatayo:-

Yona: ...Sharti ujue kwamba fimbo ya mzee hurithi mtoto wa kwanza.

Sara: Fimbo wanarithi watoto wa kiume; si wa kike (uk 2).

Mfumo dume huu unaungwa mkono na wanawake wenyewe kama Sara anavyosema. Yona amejaliwa watoto wa jinsia ya kike kumaanisha kuwa hana mrithi kama vile Sara anavyosema.

Jamii nayo inaunga mkono kauli hii kama anavyosema Dina kwa Kiwa.

Dina: Lakini kama ujuavyo mwanangu mwanadamu sawa na tumbo, hakinai.

Kiwa: Hivi kweli mama tumbo halikinai?

Dina: ...Roho ndiyo hukinai.

Dina: ...hayakuishia hapo. Baada ya ile mvua ya baraka iliyowanyea, watu walianza tena kuwasema kuwa hawana mtoto wa kiume.

Kiwa: Kwa nini hilo nalo liwakere?

Dina: Mahasidi hawana sababu. Halafu upo huo Uafrika mwanangu. Watu waliuliza na wangali wanauliza ardhi ya Yona atarithi nani! (uk 8).

Ni wazi kwamba jamii inamthamini mtoto wa jinsia ya kiume kumliko wa kike. Imani ikiwa wa jinsia ya kike ataolewa na kumwacha mzazi wake. Imani hii inamdhalilisha mtoto wa jinsia ya kike na kumpa nafasi ya juu yule wa kiume.

Wazee wenzake Yona walimhimiza kumwoa mke mwingine ili amzalie mtoto wa kiume ambaye angekuwa mrithi wake. Dina anasema hivi:-

Dina: Nilikuwa nimesahau. Naam, hazikwisha kamwe. Watu walimtia Yona maneno kuwa lazima awe na mrithi. Walimtaka aoe mke atakayemzalia watoto wa kiume kwa kuwa, kwa maneno yao, Sara alikuwa ameshindwa.

Kiwa: Kweli?

Dina: Sijui imekuwaje lakini haikupata kutokea hivyo licha ya minong'ono yote iliyokuwepo. Ila unyanyapaa ulimfanya Yona kuupokea ulevi kwa mikono miwili (uk 9).

Dondoo hili linaashiria kuwa mwanamume akosapo mtoto katika ndoa, mwanamke ndiye hulaumiwa.

Dina anamfahamisha Kiwa kuwa Sara alipokea kichapo kwa kutomzalizia Yona mtoto wa kiume. Hatimaye, kichapo hiki kilimsababishia maradhi ya moyo.

Dina: Hao wametoka mbali. Upo wakati hakuna aliyeamini wangeishi pamoja. Pamoja na ulevi wake, Yona alianza kumpiga Sara; tena kipigo cha mbwa hasa alipokuwa amelewa. Mara kadhaa alimwagiwa maji baridi kumrejeshea fahamu.

Kiwa: Kwa nini kichapo chote hicho?

Dina: Eti hakumzalizia mtoto wa kiume (Uk 10).

Jamii ya Kiafrika ina Imani kuwa iwapo familia haina mtoto wa jinsia ya kiume basi haina mrithi yeyote.

4.3 Mwanamume ameruhusiwa kumpata Mtoto nje ya Ndoa

Kulingana na nadharia ya ubabedume, kunazo sifa angama za uwezo-uume ambazo ni sharti mwanamume awe nazo ili kuweza kujenga, kudumisha na kudhihirisha ubabe. Sifa hizi ni kama vile; uvumilivu, uwezo, kutoogopa, kuthubutu, ukware miongoni mwa sifa nyingine. Makala hii imepata kwamba jamii inamsukumwa Yona kuwa mkware ili kuthibitisha ubabedume wake. Sara anapomzalizia Yona watoto wa jinsia ya kike, rafikize walimshauri aoe mke mwingine ambaye angemzalizia watoto wa kiume kwani Sara alikuwa ameshindwa. Kauli hizi zilikuwa zikimwelekeza kuwa mkware. Dina anamwambia Kiwa yafuatayo:

Kiwa: Ulikuwa unasema karo za watu hazikuishia pale.

Dina: Nilikuwa nimesahau. Naam, hazikwisha kamwe. Watu walimtia Yona maneno kuwa lazima awe na mrithi. Walimtaka aoe mke atakayemzalizia watoto wa kiume kwa kuwa, kwa maneno yao, Sara alikuwa ameshindwa (uk 9).

Rafikize Yona wanapendekeza kwamba atafute mtoto nje ya ndoa mradi awe wa kiume ili athibitisha kuwa ana ubabedume. Wanaamini kwamba atakuwa amepata mrithi na jina lake halitapotea. Haya yanafanyika ilhali Yona ana watoto wawili; Neema na Asna walio wa jinsia ya kike. Jamii haithamini watoto wa jinsia ya kike basi inachangia katika kuendeleza ubabedume. Shinikizo hili linamfanya Yona kuingia katika ulevi. Dina anamwambia Kiwa kuwa:-

Dina: Ninakwambia kwa mikono yote miwili. Wewe umekua ukampata Yona kipenzi cha maji. Hakuwa hivyo.

Kiwa: Alaa!

Dina: Alisukumwa huko na wimbi la maneno ya watu. Wengine wakamsukuma kutafuta mtoto huko nje kwa kila hali mradi awe wa kiume. Amrithi yeye. Eti jina lake lisipotee. Utambi wa ukoo wake usizime (uk 10).

Kwa hakika, jamii inachangia katika kumfanya mwanamume kufanya juu chini ili kuthibitisha nguvu zake za uume hata ingawa amezalisha kiumbe mwanamke.

4.4 Mwanamume Haruhusiwi Kujishughulisha na Kazi za Nyumbani

Sara anamwelezea Dina kuwa mila na desturi za jamii yao zinemkuza mwanamume kuwa kuna kazi za wanawake na za wanaume. Ni makosa kwa mwanamume kuingia jikoni. Isitoshe, iwapo atamsaidia mkewe, watu watasema kuwa amedhalilishwa. Sara anamwambia Dina:-

Dina: Wakati mwingine ninashindwa kuwaelewa.

Sara: Wenyewe tumewafanya hivyo. Mila na desturi zetu zimewajenga hivyo walivyo na sisi hivi tulivyo. Kazi zote za nyumbani ni zetu. Yaani kwake mtu lakini hajui hata chumvi inakowekwa. (Wanacheka.). Yeye anajua sebuleni, msalani na chumba cha kulala. Haya yasiyotarajiwa

yajapo tayari mtu ana kilema kikubwa japo mzima viungo vyote. Anaishi kuwa mgeni wa mambo mengi kwake nyumbani. Tutaafanya nini? Wenyewe tutasukuma vivyo hivyo (Uk 14).

Dina: Sijui tufanye nini.

Sara: Utafanya nini mwenzangu? Dunia ikijua anakusaidia jikoni itasema unashusha hadhi yake na kwa mizani ya jamii utakuwa unajivulia nguo (Uk 14).

Kutokana na mazungumzo ya Sara na Dina, ni wazi kuwa utamaduni wa jamii hii umejikita katika imani na desturi ambazo zimetamalaki katika mfumo mzima wa jamii.

Sara anashauriwa na Asna pamoja na Neema akae mjini ili apate matibabu kisha apumzike lakini anadai kuwa amemwacha Yona pweke nyumbani. Kazi za nyumbani kama vile kushughulikia kuku asubuhi kisha mbuzi na ng'ombe, kujipikia kiamshakinywa na kuendea maji kisimani zitamlelea. Baadaye, kijiji kizima kitamtazama Yona kwa jicho la dharau kwani kazi kama hizo ni za mkewe.

Asna: Baba bado kijana. Hawezi kushindwa kuteka maji kisimani.

Sara: (Kwa ukali.) Hivi mtoto una akili wewe? Babako aende kuteka maji kisimani? Wazee wenziwe watawona? Kijiji kitasema nini? Kwamba amesomesha watoto ambao wameniweka jijini ili baba yao ataabike? Watu wapate sababu ya kumtazama kwa sini ya dharau? Hmm! Hiyo ndiyo heshima? (uk 44-45).

Dondoo hii inathibitisha kwamba kazi ya nyumbani ni za wanawake pekee. Wanaume hawapaswi kujishughulisha nazo kamwe.

Hata ingawa Beni aliye mzee mwenzake Yona anaelewa kuwa Sara yuko mjini kwa matibabu, analalamika kuwa Yona ameachwa pweke ili ajipikie.

Luka: ... Mtu kupata matibabu au kuja kumpikia mwenzake?

Beni: Yona, muda wote uliokaa nani anakupikia mzee mwenzetu? Hii ni miaka ya kujipikia? Ningelewa zamani zile ukiwa mwalimu kabla ufutwe kazi. Siku zile ulikuwa na nguvu zako. Sasa misuli yako imenyauka (uk 61).

4.5 Mwanamume anaitwa Gumba kwa Kutopata Watoto

Nadharia ya Ubabe-Dume inataja kwamba kuna sifa angama za uwezo-uume ambazo ni sharti mwanamume awe nazo ili kuweza kujenga, kudumisha na kudhihirisha ubabe. Sifa hizi ni kama vile; uvumilivu, uwezo, kutoogopa, kuthubutu, ukware miongoni mwa sifa nyingine. Kulingana na tamthilia hii, mwandishi kwa kupitia mazungumzo ya Dina na Kiwa inaweka wazi kwamba ubabe dume wa Yona ulitiliwa shaka na jamii kwa kusema kuwa hakuwa na watoto katika ndoa yake na Sara. Dina anamwambia Kiwa kuwa:-

Dina: Mwanangu nikwambie nini? (Kimya.) Sara ameitwa tasa. Wakati mwingine yeye na mumewe wameitwa wagumba, japo shoka la ugumba limemwangukia yeye zaidi kuliko mwenziwe.

Kiwa: Lakini mama, si wana watoto? Au ndiyo unasema watoto hawa si wao?

Dina: Damu yao hiyo lakini wameiona baada ya hodari wa kusema kuwabandika hili na lile.

Kiwa: Vipi hivyo?

Dina: Yaani yamesemwa mengi siku nyingi kama ilivyo ada katika jamii nyingi za Kiafrika... Kwa ufupi, Yona alifunga uchumba na Sara na hatimaye wakaoana na kuishhi vizuri ila milango ya baraka ya watoto ikakawia kufunguka. Tulivyo Waafrika, ikawa kuna waliolijua tatizo kuliko wenye tatizo. Kazi ikawa ni kuwasema, wakalaumiwa na

kusutwa. ...Lakini hatimaye Mungu akaridhia wakati wake aliouona bora (Uk 7).

Haya yanaashiria kwamba, jamii inamwona mwanamume asiye na watoto katika ndoa kuwa mwanamume asiyekamilika.

Sara anawaambia watoto wake Neema na Asna kuwa yeye na Yona walichukua muda kabla ya kuzaliwa mtoto. Jamii iliwalaumu na hata walipowapata kina Neema na Asna bado walionekana maskini wa mrithi. Anamwambia Asna:-

Sara: Tulikosa mengi. Kwanza sisi wazazi wenu tulichukua muda kabla ya kujaliwa mtoto. Watu walituona maskini wa watoto. Maskini wa kizazi...Tulipofarijika kwa kumpata Neema na nyinyi mkafuata, bado wakatuona maskini wa mrithi. Maskini wa kushikwa mkono uzeeni...Hatimaye wengine walitutenga lakini kwa kudura za Mungu jahazi halikuzama (Uk 55).

4.6 Mwanamume amejitwika Majukumu yote ya Nyumbani

Chafetz (1974) na Doyle (1985) wanasema kuwa maeneo ya ubabedume yanajitokeza katika desturi kwa jumla kupitia maumbile, nguvu za kimwili, ushujaa, kufanya kazi na kukidhia familia, kuwa na tajiriba na shari ya kijinsia, ukakamavu, urazini, kutaka makuu, majivuno, uadilifu, ushindani na kuthubutu mambo. Katika jamii za Kiafrika, majukumu hugawanywa kiuana. Kuna yale ambayo yametengewa jinsia ya kike na mengine jinsia ya kiume. Mgawanyo huu hudhihirisha namna mamlaka na uwezo hugawanywa kijinsia. Utamaduni wa jamii hujikita katika imani kuwa majukumu ya nyumbani hujitwika mwanamume. Yeye sharti aifae familia yake katika mahitaji ya kimsingi ambayo ni mavazi, nyumba, chakula na elimu. Bunju anamwambia Neema kuwa ni

wajibu wake (Bunju) kukidhi mahitaji ya familia yake bila kumhusisha.

Bunju: Ema, unafahamu vizuri kuwa nimechukua mkopo wa benki kujengea nyumba hii. Mkopo huo haunipi amani. Ninahangaika kuulipa. Wewe mwenyewe ulikazana kwamba Mina aende boarding school. Tena shule ya gharama. Pesa nyingine nitatoa wapi?

Neema: Buu, mtoto wa kwanza anafaa kusomea shule ambayo inatia matumaini. Fahari iliyoje mtoto kusomea shule ambayo haikupi wasiwasi!

Bunju: Mimi wajibu wangu kwenu ninautimiza. Je, sinunui chakula?

Neema: Unanunua bila shaka.

Bunju: Mavazi?

Neema: Tunayo.

Bunju: Si hivi majuzi nimekununulia gari?

Neema:...

Bunju: ...Mimi nilikwisha kukueleza kuwa mzigo wa familia yangu unatosha kunishughulisha (Uk 27).

Bunju anafahamu fika kuwa ni jukumu lake kama mwanamume kukidhi mahitaji ya familia yake bila kumhusisha Neema. Anamwambia Neema kuwa ana uhuru wa kutumia mshahara wake ili kulipia matibabu ya mamake. Bunju amemnunulia gari na ni wajibu wake kuinunulia mafuta. Anamwambia Neema haya:

Bunju: Shukuru una mahali pa kuamkia siku baada ya siku. Bila hapo ungekuwa unajipa shughuli gani?

Neema: Daima ninashukuru japo hakitoshi.

Bunju: Hakitoshi vipi?

Neema: Mahitaji yenyewe ni mengi.

Bunju: Sielewi. Nyumba ni juu yangu, karo ninalipa mimi, chakula ninanunua mimi, matibabu vilevile ni juu yangu. Sasa wewe mshahara wako huo mbona

usitoshe? Mafuta ya gari ndiyo yanaumaliza?

Bunju: Wajibu wangu kama mume nitaifanya na nimejitolea kutekeleza kwa hali na mali kufikia hapo. Wewe unajua uzito wa majukumu niliyo nayo. Mshahara wako sikuombi wala siku pangii. Gharama zote zinajua tu mfuko wangu (uk 39-40).

Mazungumzo baina ya Bunju na Neema yanaashiria kuwa ni jukumu la mwanamume kukidhi mahitaji yote ya familia yake. Jamii inatarajia kwamba mkewe hatahusishwa kwa vyovyote vile. Kutekeleza majukumu haya ni ishara tosha kuwa mfumo dume umemwekea mwanamume masharti hayo.

5.0 HITIMISHO

Makala hii imebainisha kuwa kuna ubabedume uanodhihirika katika jamii kupitia kwa wahusika waliotumiwa na mwandishi. Mhusika wa jinsia ya kiume amesawiriwa kama mtegemezi, mrithi wa mali, ameruhusiwa kupata mtoto nje ya ndoa, haruhusiwi kujishughulisha na kazi za nyumbani, anaitwa gumba kwa kutopata watoto na anayejitwika majukumu yote ya nyumbani.

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INTERACTIVE COMMITMENT AND MARKETING PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN NYANZA REGION, KENYA

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ABSTRACT

Marketers and managers try to get value able feedback form customers for the formation of long-term relationship which creates customer loyalty. To reinforce the relationship there is need for marketers to comprehend the extent to which a high degree of interactive commitment will enhance impact on loyalty and marketing performance outcomes. This is because the catalyst of positive customer relationship is a satisfied customer base fomented by interactive commitment. Therefore, in the context of developing countries the current study has focused on the influence of interactive commitment on the marketing performance of micro and small enterprises in Nyanza region, Kenya. 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 Yamanes (1967) formula. Data was collected using

questionnaires and analyzed using descriptive statistics and inferential statistics using SPSS version 26.0. From the findings, interactive commitment explained 41.2 percent variation on marketing performance. A coefficient of .540 indicated that a unit change in interactive commitment leads to .540 units of positive change in marketing performance. In conclusion interactive commitment significantly affects marketing performance ($t=15.595$, $P<0.05$). In light of this, the study came to the conclusion that interactive commitment affects marketing performance. As a result, it follows that correct and efficient interactive commitment will probably result in higher marketing performance. In order to increase marketing performance, MSEs should desire to build a solid connection, be willing to make short-term sacrifices to sustain the relationship, and develop confidence in the durability of the relationship.

1.0 BACKGROUND OF THE STUDY

Customer loyalty has great importance and agonizes among connoisseur, academician and professionals in ample industries (Tanveer, Kashif, & Salman, 2015). There in customer relationship management, customers are not considered as outsiders but as insiders to the business and aims to build a long-term relationship with them to win their loyalty. This is because customer loyalty is a result of a consistent satisfactory experience, which leads customers to favor one brand over the others. Therefore, marketers and managers try to get value able feedback form customers for the formation of long-term relationship which creates customer loyalty (Roshani, 2009). To reinforce the relationship there is need for marketers to comprehend the extent to which a high degree of interactive commitment will enhance impact on loyalty and marketing performance outcomes. This is because the catalyst of positive customer relationship is a satisfied customer base fomented by interactive commitment.

Lovelock, (1999) described that consumer satisfaction was indivisibly related to consumer faithfulness and association with commitment and greatly pleased consumers expand optimistic word of mouth and opportunity into an on-going advertisement for an association finally service had delighted consumers and highly pleased consumers might be more magnanimous. As SET gives interactive marketers the building blocks to use to start trade relationships through ongoing interactions, each side of the exchange is required to fulfill their commitments and should profit, if the engagement is to last for a long time. Also, loyal clients or customers are more likely to start thinking about making another purchase because of this perceived fair treatment,

which is one of the elements of social exchange theory. Because of this, the more satisfied consumers are, the more likely they are to be loyal, which will eventually result in repurchase intentions. A balanced and honest relationship will result in less calculatively and more affectively committed customers, more satisfied customers, and therefore in a long-lasting profitable relationship for both parties (Wetzels, De Ruyter, & Van Birgelen, 1998). Interactive commitment encourages consumers to provide constructive comments on the company's performance. Customer commitment provides service providers with the opportunity to rethink strategy process and outcomes. It offers companies the chance to appropriately target their customers, reduce switching behavior and increase long-term profitable relationships. According to Anderson, Hakansson, and Johanson, (1994) the concept of commitment captures not only the continuity but also the growth in relationships between exchange partners. Commitment is essential to successful long-term relationships and an important driver of consumer loyalty and marketing performance. There are three forms of customer commitment: relational commitment, instrumental commitment and value-based commitment (Amyx, Bhuian, & Shows, 2016). At the same time, there is an interactive commitment between customer and service provider. This builds on the work of Somers in organizational behavior and the work of Heide and John in relationship marketing (Noor, 2013).

Customer commitment is a retention strategy that focuses on keeping people loyal by consistently delivering on the brand's value proposition and fostering relationships. However, there are conflicting arguments about the concept of interactive commitment. For instance, Buttle, (1996) found little evidence that customers want to enter into long-term relationships. In addition, udorn, bloom, zeithaml, and Udorn, (1998) who

argue that there is no clear reason why individual consumers would want to commit to long term relationships with a particular firm. The relationship-quality route to commitment subscribes to the view that commitment takes time and is formed through repeated interactions between exchange partners (Dwyer, Schurr, & Oh, 1987). However, interactive commitment leads to relationship growth; widening and deepening of interactions between exchange partners (Sashi, 2012). A high degree of customer contact, commitment and services are therefore essential features of CRM (Ramakrishnan., 2006). On the basis of the research by the World Bank (2018) and PWC (2017), the majority of MSEs in Kenya are founded by young people and are typically characterized by a high mortality rate, with three out of five of these businesses failing within their first three years of operation and failing to celebrate their third anniversary, which is a failure rate of 60%. The national government expanded the Kenya Youth Employment and Opportunity Programme (KYEOP) to the region in order to provide entrepreneurial training as a result of an increase in MSEs, particularly in the Nyanza region (Kisumu County, 2019). An exceptional performance and a lower failure rate would be anticipated. Nonetheless, 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 (KEPSA-KYEOP, 2019). Therefore, in the context of developing countries the current study has focused on the influence of interactive commitment on the marketing performance of micro and small enterprises in Nyanza region, Kenya.

1.3 Objective of the Study

1.3.2 Specific Objectives

The specific objectives of the study were:

- I. To determine the influence of interactive commitment on the marketing performance of micro and small enterprises in Nyanza region, Kenya.

2.0 EMPIRICAL REVIEW

2.1 Influence of Interactive Commitment on Marketing Performance of Firms

Majority of the studies examining the link between interactive commitment and business success have discovered a positive association, showing that participating in interactively stimulating activities stimulates repeat business, which enhances firm performance. Using a five-point Likert scale questionnaire to assess customer satisfaction, trust, and commitment as predictors of customer loyalty within an optometric practice environment, Vuuren, Roberts-Lombard, and Tonder (2012) found that customer commitment significantly influences customer loyalty within an optometric practice environment, leading to improved performance. Sutanto and Djati (2017) identified a substantial association between customer loyalty and trust, contentment, and commitment while studying on the impact of these factors at the alfamart retail in Indonesia, which provided more evidence in support of their findings. In his study, Hultén (2007) showed that compared to passive consumers, who use the services seldom, active customers, are more relational, with high levels of trust and commitment. This was found when employing direct marketing (DM) and online activities as marketing tools to explore the idea of trust, commitment, and relationships in a processing laboratory in Sweden.

On the other hand, Bricci, Fragata, and Antunes (2016) conducted a study to ascertain how client loyalty in the Portuguese distribution business is impacted by trust, commitment, and satisfaction. The study

found that loyalty and trust are directly and positively impacted by commitment; as a result, it is crucial for businesses to foster more accountability, team building, employee empowerment, and co-creation of value. The results of a test evaluating the interaction influence of organizational commitment and work participation on different forms of absenteeism among Midwestern bus drivers were similar to those of Mathieu and Kohler (1990). In their study on customer satisfaction, trust, and commitment as determinants of customer loyalty within an upbeat practice environment, Vuuren et al. (2012) showed that customer commitment strongly influences customer loyalty. In their investigation of the impact of trust, satisfaction, and commitment on client loyalty, Sutanto and Djati (2017) make a similar observation. Bricciet al. (2016) found that commitment has a direct and beneficial

3.0 RESEARCH METHODOLOGY

3.1 Research Philosophy

According to Creswell (2012), research philosophy is the fundamental viewpoint that a researcher has towards the proper methods for gathering, analyzing, and using data for a certain study. 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.

3.2 Research Design

As the data on the variables in this study were gathered in a snapshot to represent what was happening at that particular moment in time, the researcher used a cross-sectional survey research methodology. Cooper and Schindler (2006) posits that a cross sectional survey

impact on both trust and loyalty in their further research on the relationship between customer loyalty and satisfaction, trust, and commitment in the Portuguese distribution industry. In each of these researches, we examined the relationship between commitment and client loyalty. The current study looked at how commitment affects MSE marketing performance, a topic that seems to be understudied in the majority of earlier studies. Prior research on interactive commitment and business success was done in industrialized nations including Portugal, Sweden, and Indonesia. Given that various countries have distinct social, economic, and cultural perspectives, these studies found a positive association; nevertheless, the findings may not apply or may differ in other nations. The present research on interactive commitment and marketing performance among MSEs in the Nyanza Area of Kenya was therefore expected to close the gap.

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.

3.3 Target Population

The target population was 3,211 registered MSE owners in the Nyanza area by Kenya National Chamber of Commerce and Industry (KNCCI) As of September 30, 2022 (KNCCI Chapter, 2021) as presented in table 3.1. MSEs were specifically chosen for the study because they had a variety of qualities and because the empowerment on the social and economic fronts that these kinds of enterprises were thought to provide for Kenyan residents. MSEs contribute significantly to the economy, especially by giving young people jobs (GOK, 2015).

Table 3. 1: Target Population

NO.	County	Number of MSE’s Owners
1	Kisumu county	431
2	Siaya county	705
3	Homabay county	933
4	Kisii county	432
5	Nyamira county	270
6	Migori county	440
TOTAL		3,211

Source: KNCCI County chapters registration database (2021)

3.4 Sample Size

The sample size is the overall number of respondents who fit the study's target demographic (Bryman and Bell, 2011). An acceptable confidence interval for choosing the sample size for generalization is one of 1% to 5%. (Saunders et al. 2014). Israel, 1992; Bartlett, Higgins, and Kortlik (2001) posits that the bulk of social science research utilizes an alpha level of 0.05; as a result, hence the researcher chose to employ a confidence interval of 5%. As the target population was specified, the study used the Yamane (1967) formula to determine the sample size.

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

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.

$$n = \frac{3,211}{1+3,211(0.05^2)} = 355.69 \approx 356$$

Hence, the 3,211 target population yielded a sample size of about 356. The sampling fraction $f=nf/N$ was then used to calculate the sample size for each county. The distribution of the sample size among the six Counties that make up the Nyanza area is seen in Table 3.2;

Table 3. 2: Sample Size Distribution per County

NO.	County	Number of MSE’s Owners	Percentage (%)	Sample Size
1	Kisumu county	431	12.5	48
2	Siaya county	705	23.5	78

3	Homabay county	933	32.6	104
4	Kisii county	432	12.5	48
5	Nyamira county	270	6.0	30
6	Migori county	440	12.9	48
TOTAL		3,211	100	356

Source: Current Researcher, 2022

3.5 Data Collection Instruments

For this study's primary data, questionnaires were used to gather the information. Respondents were given the assurance that their answers would be completely anonymous and confidential before the data collecting instrument was administered. The survey used a Likert scale with five possible outcomes: not at all, low, moderate, high, and very high. One represents not at all, two means low, three means moderate, four means high, and five means extremely high.

3.6 Data Analysis

Upon receipt, the affirmative replies from the questionnaires were examined for consistency and completeness in order to get them ready for statistical analysis using SPSS version 26. The gathered data was then examined by use of descriptive and inferential statistics. The hypotheses were tested at .05 significance level using simple, regression analysis.

The general regression model expressed will be as follows:

$$MP = \beta_0 + \beta_2 ICn + \epsilon \dots \dots \dots 3.1$$

Where: MP = Marketing performance
 β_0 = is the intercept
 ICn =Interactive Commitment
 ϵ = error term

4.0 FINDINGS, CONCLUSION AND REPRESENTATION

4.1 Descriptive analysis

4.1.1 Interactive commitment

The respondents were asked to score their view of interactive commitment on a scale of 1 to 5, where 1 was the least amount, 2 the most amount, 3 the most amount, 4 the most amount, and 5 the highest amount. The results were calculated and shown as indicated in Table 4.1 for their means, standard deviations, and SE.

Table 4. 1: Response on interactive commitment

	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic
Repeat orders from customers	356	3.38	.055	1.007
Orders from referred customers	356	3.28	.056	1.046
Customers encouraged to provide views	356	3.37	.067	1.263
Consider feedback with open mind	356	3.94	.060	1.122

Customers not distracted by competitors	356	2.74	.062	1.155
Customers recommend our business	356	3.73	.060	1.124
Customers follow us on social media	356	2.73	.076	1.440
Aggregate mean		3.31	.062	1.17

Source: Survey Data (2022)

Findings in Table 4.1 show that considering customer input with an open mind had the greatest mean score of 3.94 and standard deviation of 1.122, while social media followers had the lowest mean score of 2.73 and standard deviation of 1.440. This implies that whereas majority of the MSEs considered feedback from customers with an open mind, they agreed to a low extent with customers following on social media. Further, repeat orders from customers, customer recommendation, provision of views by the customer, orders from referred customers and no distraction from the competitors had mean values of 3.73, 3.38, 3.28, 3.24, 3.37, and 2.74, respectively. The findings also showed that the overall mean score was 3.31. This suggests that interactive commitment was seen as a factor that influences their marketing performance to a considerable amount.

4.1.2 Marketing Performance of Micro and Small Enterprises

The dependent variable, marketing performance, was evaluated using seven components, including; customer positive attitude, feedback handling, increased sales, meeting customer demands, uniqueness of product, pride in product association and valuing of products by customers. On the basis of these characteristics, respondents were asked to score the marketing performance. The scale went from 1 to 5, with 1 being completely absent, 2 being of low extent, 3 being of moderate extent, 4 being of great extent, and 5 being of extremely high extent. Table 4.2 displays the findings.

Table 4. 2: Marketing performance of Micro and Small Enterprises

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Customers have positive attitude towards 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

Source: Survey Data (2022)

According to Table 4.7, 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 effectiveness was 3.83, with a 0.918 standard deviation. As a result, the majority of respondents did engage in a

significant way on actions that improve marketing success.

4.2 Influence of Interactive Commitment on Marketing Performance of Micro and Small Enterprises

To ascertain the influence of interactive commitment on marketing performance, the study evaluated the following null hypothesis:

H₀₁: Interactive Commitment has no significant influence on the marketing performance of micro and small enterprises within Nyanza region.

The test of hypothesis involved regression of interactive commitment (predictor variable) on marketing performance (criterion variable). Test results are presented in Table 4.3.

Table 4. 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.647 ^a	.419	.418	.47070	1.738

a. Predictors: (Constant), Interactive commitment

b. Dependent Variable: Marketing Performance

The marketing performance of MSEs was found to vary by 41.9%, according to the coefficient of determination (R^2) value of 0.419. While the study focused on interactive

commitment and marketing performance of MSEs in the Nyanza area of Kenya, 58.1% of the variance in marketing performance is explained by other factors that weren't

accounted for in the empirical model of the study. The study also aimed to determine the strength of the relationship between interactive commitment and marketing

performance among MSEs in the Kenyan Nyanza area. The results of the analysis are shown in Table 4.4.

Table 4. 4: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.615	1	56.615	255.534	.000 ^b
	Residual	78.431	354	.222		
	Total	135.046	355			

a. Dependent Variable: Marketing Performance

b. Predictors: (Constant), Interactive Commitment

Results from table 4.5 indicated the F statistic of 255.534 with a p-value of 0.000 which implies that the regression model is significant. In addition to this, the study ascertained the regression coefficient

between interactive Commitment and marketing performance of MSEs in Nyanza region, Kenya. The results are presented in Table 4.5.

Table 4. 5: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	1.927	.122		15.837	0.000
	Interactive Commitment	.570	.036	0.647	15.985	0.000

According to the data in table 4.5, if interactive Commitment were held constant at zero, MSEs' marketing performance would be 1.927. Moreover, one unit more interactive Commitment results in a 0.570 rise in marketing performance. Thus, interactive Commitment is statistically significant at $B = 0.570$; $t = 15.985$; and $p = 0.000$. Interactive Commitment 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 Kenya's Nyanza area and interactive commitment. Based on the findings of the regression coefficients, the

equation for the basic linear regression model was constructed as;

$$Y = 1.927 + 0.570 \text{ Interactive Commitment}$$

Where

Y = Marketing performance

CN = Interactive commitment

The findings of the study corroborate with Sutanto and Djati (2017) in a study whose findings established that customer commitment significantly influence customer loyalty which in turn leads to improved performance of retail businesses in Indonesia. The finding also agrees with Bricci et al., (2016) who revealed that there

was a positive relationship between commitment and customer loyalty in Portugal distribution sector. The study also confirmed the argument of Du Plessis (2010) that “more committed customers tend to form a positive overall impression of the total duration of the relationship, including different transactions; positive and negative thus exhibit strong intentions to stay in the relationship”. This fact was also ascertained by Vuuren et al., (2012) in their empirical study on commitment as a predictor of customer loyalty. The findings further support empirical studies by Hultén (2007) who determined that commitment had a significant effect on performance indicating that active customers tend to be more relational, and with high levels of commitment, as opposed to passive customers who are less relational. Further, Cai & Wheale (2004) noted that “a high level of commitment provides the context in which both parties can achieve individual and joint goals without fear of opportunistic behavior since more committed partners are likely to exert effort and balance short-term problems with long-term goal achievement”.

5.0 CONCLUSION AND RECOMMENDATION

To begin with, the results of the study showed that interactive commitment has a substantial impact on marketing performance. In light of this, the study came to the conclusion that interactive commitment affects marketing performance. As a result, it follows that correct and efficient interaction commitment will probably result in higher marketing performance. The survey suggested that MSEs think about adopting an interactive commitment that includes consistent delivery of the brand's value proposition and relationship-building. In order to increase marketing performance, MSEs should also make sure they have the following qualities: a desire to build a solid connection, a

willingness to make short-term sacrifices to sustain the relationship, and confidence in the durability of the relationship.

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Exit Survey for Graduates: An Essential Component in the Improvement of Quality in Higher Education

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Abstract

Kenya's fast growth in the number of higher education institutions has resulted in fierce rivalry. Students are now being asked to provide comments on how happy they are, with all service delivery units present in their respective institutions. A student satisfaction survey questionnaire is used to channel this feedback. One form of these surveys is the exit survey for graduates; which serves the purpose of gathering feedback and insights from individuals who have recently completed their academic studies. It helps institutions evaluate the effectiveness of their programmes, assess the quality of education and student experiences, and make improvements accordingly. Graduate feedback is now being sought by educational institutions worldwide through the utilization of an exit survey for graduates. The goal of

this study is to discuss the formulation and deployment of this survey to determine undergraduate and postgraduate student satisfaction level. The exit survey for graduates is an essential and effective tool that focuses on resource areas where there is a lack of satisfaction but still fundamental. The approach, computation, analysis, and outcome of employing the Likert scale are all discussed in this study. The relevance of overall flexibility in the formulation of single and grouped parameter questions is demonstrated and proved.

Keywords: Higher education institutions, student satisfaction, exit survey for graduates, undergraduate students, postgraduate students, single parameter questions, grouped parameter questions.

1.0 INTRODUCTION

In Kenya, higher education institutions are guided by various regulations such as the Universities Act (2012), Universities Rules and Regulations (2014), and the Universities standards and guidelines (2014) provided by the Commission for University Education (CUE). These regulations aim to ensure and regulate the quality of university education, set standards and guidelines, and monitor compliance for global competitiveness in higher education institutions (HEIs). Consequently, students play a crucial role as key stakeholders in any educational institution. In addition to assessing students' progress and placements, one of the key indicators of a college's advancement is the satisfaction level of its students.

In Kenya, HEIs not only focus on imparting the necessary skills and improving graduates' abilities but also place importance on ensuring students' satisfaction with their academic experiences in the institution. This emphasis extends to primary activities such as teaching, learning, evaluation, research, extension activities, and innovation, as well as infrastructure facilities, quality of services, welfare measures for students and staff, and overall satisfaction with the educational experience. A robust, effective, and value-based academic system forms the foundation of any nation's progress. To move in the right direction, it is essential to have a comprehensive understanding of student diversity, socioeconomic status, expectations, and academic preferences, as these parameters greatly contribute to student satisfaction. Satisfied individuals are more efficient and contribute to the institution's and the nation's overall progress.

Students enrolled in higher education institutions seek quality education and a well-functioning system that includes accessible facilities, good infrastructure, a high-quality education system, services provided by the institution, and additional inputs such as value addition and employability enhancement courses. As highlighted by Usman (2010), infrastructure facilities are becoming increasingly important as they fulfill students' perception and esteem, equipping them with the necessary essentials and capabilities to become effective learners. HEIs worldwide are increasingly competing for students at national and international levels, striving to improve student satisfaction to attract and retain students. This can only be achieved if all services contributing to the "academic life" are of satisfactory quality.

Student satisfaction can be defined as an attitude resulting from an evaluation of students' educational experiences, services, and facilities provided by the institution. Since students serve as important internal evaluators of an institution's performance, student satisfaction surveys such as exit surveys for graduates are valuable tools that help HEIs improve and make adjustments accordingly within the higher education landscape.

2.0 LITERATURE REVIEW

Higher education is considered a crucial tool for a nation's individual, social, and economic development (Mukhtar et al., 2015). The primary objective of higher education institutions is to cultivate well-prepared minds among students (Fortino, 2012). Recognizing students as their customers, institutions are increasingly focused on meeting their expectations and

needs (DeShields et al., 2005). To differentiate themselves from competitors and attract students while satisfying current ones, institutions face intense competition and employ market-oriented strategies.

Numerous research studies have investigated the factors influencing student satisfaction in higher education. Student satisfaction is defined as a short-term attitude resulting from the evaluation of their educational experiences and is influenced by various factors (Elliot and Healy, 2001). GPA has been identified as the most influential factor on student satisfaction (Walker-Marshall and Hudson, 1999).

Two groups of influences on student satisfaction have been identified: personal factors and institutional factors (Appleton-Knapp and Krentler, 2006). Personal factors encompass age, gender, employment, preferred learning style, and student GPA, while institutional factors include instruction quality, instructor feedback promptness, expectation clarity, and teaching style. Other significant determinants of student satisfaction identified in higher education include teaching ability, curriculum flexibility, university status and prestige, independence, faculty care, student growth and development, student-centeredness, campus climate, institutional effectiveness, and social conditions (Douglas et al., 2006; Palacio et al., 2002).

Various models and frameworks have been utilized to enhance student satisfaction in higher education. The SERVQUAL model, originally developed for the business environment, is widely employed to measure service quality and customer satisfaction based on five dimensions: tangibility, reliability, empathy, responsiveness, and

assurance (Parasuraman, 1985). However, this model has faced criticism when applied to higher education literature (Elliot and Shin, 2002). A more comprehensive student satisfaction inventory with 11 dimensions and 116 indicators was developed by Elliot and Shin (2002) to measure satisfaction in the higher education industry.

In the context of higher education literature, models for student satisfaction have evolved from industry-based models to higher education-specific models. Douglas et al. (2006) proposed the "Service Product Bundle" method, considering 12 dimensions to investigate influences on student satisfaction in higher education. Weerasinghe et al. (2017) traced the history of various models derived from both the business and higher education sectors.

Anita and Meghana (2022) designed a survey tailored to the specific needs of a higher education institution, focusing on administrative practices, college infrastructure, teacher quality, and additional campus facilities. In the diverse context of Kenya, with its varying religious, cultural, demographic, and educational backgrounds, it becomes challenging to determine a single parameter for student satisfaction. Hence, there is a need to design surveys that meet the specific needs of higher education institutions while maintaining global standards.

This study takes an innovative approach by designing an exit survey for graduates to analyze student satisfaction. The survey aims to gather feedback on the quality of education, library facilities, ICT infrastructure, student support services (such as accommodation), interaction with non-teaching staff, and overall student

experience. It also examines the approach, attitude, and expectations of students in government-sponsored and self-sponsored courses. The feedback obtained through the questionnaires will assess student satisfaction and experience, leading to enhanced overall personality development and preparation for various career paths. It is noteworthy that students from all socioeconomic backgrounds prioritize better facilities and infrastructure availability on their campuses. Therefore, the feedback form primarily focuses on assessing and evaluating the services provided by various units/departments within the institution.

2.1 Objective

To assess the overall satisfactory level of the graduates with regard to important parameters.

3.0 METHODOLOGY

The methodology for this study involved the following steps while ensuring ethical considerations:

1. Development of the Tool:

- Five important dimensions were identified: quality of education, library facilities, ICT infrastructure, and student support services.
- A sample questionnaire was initially prepared, including basic demographic questions such as the student's faculty (e.g., School of Education and Social Sciences, School of Business and Economics, School of Agriculture, Technical Studies and Natural Sciences), enrolled course (e.g., diploma, undergraduate, postgraduate), and gender.
- The remaining questions were designed using a 5-point Likert scale,

ranging from 1 (indicating poor satisfaction) to 5 (indicating excellent satisfaction), based on the recommendations by Norman (2010), Adnan et al. (2016), and Hayan and Mokhles (2013).

- Parameters were developed under each dimension to gather accurate responses.
- The tool was reviewed by experts, and necessary changes were incorporated to finalize the parameters.
- A total of 42 questions were framed for which students were asked to provide responses on the 5-point scale.

3.1 Data Collection

- Ethical considerations were ensured throughout the data collection process.
- Informed consent was obtained from the participants, clearly explaining the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses.
- Participants were assured that their participation was entirely voluntary, and they could withdraw from the study at any time without any negative consequences.
- Confidentiality of participants' responses was maintained by assigning unique identifiers to the questionnaires instead of using personal identifying information.
- Participants were assured that their responses would be anonymized and reported only in aggregated form to protect their privacy.

3.2 Statistical Analysis

- The collected responses from the filled questionnaires were entered into a statistical package known as SPSS (Statistical Package for the Social Sciences).
- The data was analyzed using appropriate statistical techniques within the SPSS software.
- Descriptive statistics, such as means, frequencies, percentages and measures of dispersion, were calculated to summarize the responses.

4.0 DATA ANALYSIS AND FINDINGS

The survey was conducted four weeks before the actual graduation date, and efforts were made to create awareness among student groups to encourage a higher response rate. Physical questionnaires were administered to the students, allowing them to participate anonymously to avoid biased responses or any pressure to give a certain response. Demographic questions were excluded from statistical analysis. The distribution of responses for each question was computed using SPSS (Statistical Package for the Social Sciences) software version 28, and the findings are presented in Table 1.

1. Analyzing the Effectiveness of Lecturers:

- An innovative approach was employed to combine specific parameters and obtain feedback on the academic environment, specifically focusing on inputs from lecturers.
- Responses related to the effectiveness of lecturers were obtained using question 1 to 13 of the questionnaire.
- Figure 1 presents the responses obtained for assessing the effectiveness of lecturers in terms of

curriculum transaction, approachability, provision of additional skills and knowledge, association activities, career guidance, and fairness in examinations.

2. Evaluating the Quality of Library Services:

- The quality and effectiveness of library services were assessed by combining responses from question numbers 14 to 21.
- Figure 2 showcases the obtained responses, offering an analysis of the quality and effectiveness of library services.

3. Evaluating the Quality of ICT Services

- The quality and effectiveness of library services were assessed by combining responses from question numbers 22 to 25.

4. Evaluating the Quality of Support services

- The quality of support services were assessed by combining responses from question numbers 26 to 36.

5. Evaluating General Student experience

- The impressions of student services were assessed by combining responses from question numbers 37 to 42.

4.1 Individual Parameter Analysis

- Individual parameters were assessed by analyzing specific questions related to each parameter.

- For instance, question number 26 provided an overall perception and satisfaction level of students in terms of support.
- The responses for this aspect showed that 38% of students were completely

satisfied, 40% were mainly satisfied, 15% were just satisfied, 4% were partially satisfied, and 3% were not satisfied at all.

Table 1: Responses obtained from the graduates on 5-point scale

S/No	Questions	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Courses offered were useful to me as I pursued my degree	2%	2%	4%	35%	57%
2.	Courses offered were well taught	1%	2%	5%	41%	51%
3.	Access to the facilities/equipment I needed to complete my degree	2%	2%	8%	42%	46%
4.	Equipment/facilities I used were well maintained	1%	2%	5%	43%	49%
5.	Equipment/facilities I used were safe	2%	1%	6%	38%	53%
6.	Lecture rooms were adequate	3%	2%	7%	40%	48%
7.	Conducive lecture rooms that were well-lit and ventilated	3%	2%	10%	43%	42%
8.	Lecture rooms were clean and well maintained	2%	2%	4%	50%	42%
9.	University environment was conducive for learning	2%	2%	6%	43%	47%
10.	University learning environment was safe	2%	1%	4%	49%	44%
11.	Received the mentoring I needed to successfully complete my degree	1%	2%	8%	42%	47%
12.	Received the mentoring I needed to successfully prepare for my career	1%	1%	8%	41%	49%
13.	Interactions with academic staff at the University were positive	2%	2%	5%	40%	51%
14.	Study materials in my field of study were available in the Library	2%	3%	13%	44%	38%
15.	Study materials available were relevant in my area of study	1%	3%	9%	45%	42%
16.	Study materials available in my area of study contained up-to-date information	1%	1%	11%	47%	40%

17.	E-resource materials were available in my area of study	1%	1%	10%	42%	46%
18.	Access to library materials was easy	1%	1%	7%	43%	48%
19.	Library time opening and closing hours were adequate	2%	1%	8%	44%	45%
20.	Interaction with library staff was cordial	1%	3%	6%	44%	45%
21.	Used to use the Library at least once every week	1%	2%	9%	42%	46%
22.	Adequacy of ICT infrastructure	2%	5%	14%	43%	36%
23.	Accessibility to computer labs	1%	5%	13%	45%	36%
24.	Internet connectivity	4%	3%	16%	42%	35%
25.	Integration of ICT in teaching	1%	2%	13%	44%	40%
26.	Adequacy of recreational facilities inform of games or sport facilities/equipment	3%	4%	15%	40%	38%
27.	Adequacy of accommodation facilities	2%	3%	11%	45%	39%
28.	Maintenance of accommodation facilities	2%	4%	12%	44%	38%
29.	Adequacy of suitable sanitary amenities	2%	3%	14%	44%	37%
30.	Maintenance of sanitary amenities	4%	1%	13%	46%	36%
31.	Adequacy of dining facilities	3%	5%	12%	43%	37%
32.	Maintenance of the dining facilities	3%	2%	11%	44%	40%
33.	Provision of spaces of worship	3%	2%	10%	43%	42%
34.	Provision of services at the Medical Department	1%	5%	15%	40%	39%
35.	Provision of Counselling services	2%	3%	13%	40%	42%
36.	Overall interaction of non-teaching staff with students	1%	3%	9%	39%	48%
37.	Services offered at the University mess were of high quality	7%	5%	15%	35%	38%
38.	Prices charged for meals at the University mess were reasonable	8%	12%	13%	34%	33%
39.	University Student Association represented student matters to the management effectively	5%	4%	16%	41%	34%
40.	University Management was available to students at the time of need	3%	4%	13%	39%	41%

41.	University provided me with an early exposure to career planning and development	3%	2%	12%	42%	41%
42.	Co-curricular activities at the University met my expectations	2%	3%	15%	41%	39%

Table 2 Responses obtained for the impressions of the quality of education

S/No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1.	Courses offered were useful to me as I pursued my degree	2%	2%	4%	35%	57%
2.	Courses offered were well taught	1%	2%	5%	41%	51%
3.	Access to the facilities/equipment I needed to complete my degree	2%	2%	8%	42%	46%
4.	Equipment/facilities I used were well maintained	1%	2%	5%	43%	49%
5.	Equipment/facilities I used were safe	2%	1%	6%	38%	53%
6.	Lecture rooms were adequate	3%	2%	7%	40%	48%
7.	Conducive lecture rooms that were well-lit and ventilated	3%	2%	10%	43%	42%
8.	Lecture rooms were clean and well maintained	2%	2%	4%	50%	42%
9.	University environment was conducive for learning	2%	2%	6%	43%	47%
10.	University learning environment was safe	2%	1%	4%	49%	44%
11.	Received the mentoring I needed to successfully complete my degree	1%	2%	8%	42%	47%
12.	Received the mentoring I needed to successfully prepare for my career	1%	1%	8%	41%	49%
13.	Interactions with academic staff at the University were positive	2%	2%	5%	40%	51%

Table 3 Responses obtained for the impressions of library services

S/No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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		1	2	3	4	5
1.	Study materials in my field of study were available in the Library	2%	3%	13%	44%	38%
2.	Study materials available were relevant in my area of study	1%	3%	9%	45%	42%
3.	Study materials available in my area of study contained up-to-date information	1%	1%	11%	47%	40%
4.	E-resource materials were available in my area of study	1%	1%	10%	42%	46%
5.	Access to library materials was easy	1%	1%	7%	43%	48%
6.	Library time opening and closing hours were adequate	2%	1%	8%	44%	45%
7.	Interaction with library staff was cordial	1%	3%	6%	44%	45%
8.	Used to use the Library at least once every week	1%	2%	9%	42%	46%

Table 4 Statistical analysis of data obtained

Table no.	Mean	Standard deviation	Coefficient of variation
Table 1	4.1934	0.8706	20.76%
Table 2	4.333	0.811	18.71%
Table 3	4.281	0.792	18.50%

5.0 RESULTS AND OBSERVATIONS

The analysis of the collected data reveals the following findings (refer to Table 4). It is important to note that the odd Likert scale used in the survey tends to produce results that gravitate towards the middle scale. The table demonstrates a low standard deviation, indicating that the majority of responses are closely clustered around the average. Additionally, the coefficient of variation

provides insight into the variability of the data, with lower values indicating more precise estimates. In this study, all the results exhibit good precision. Furthermore, the overall statistical analysis, as depicted in Table 4, suggests that the institution received positive feedback. Teachers were perceived as highly effective in fulfilling their assigned tasks, leaning towards the very good category. The quality of library services and ICT infrastructure was also rated as good.

These observations collectively highlight the institution's commendable performance.

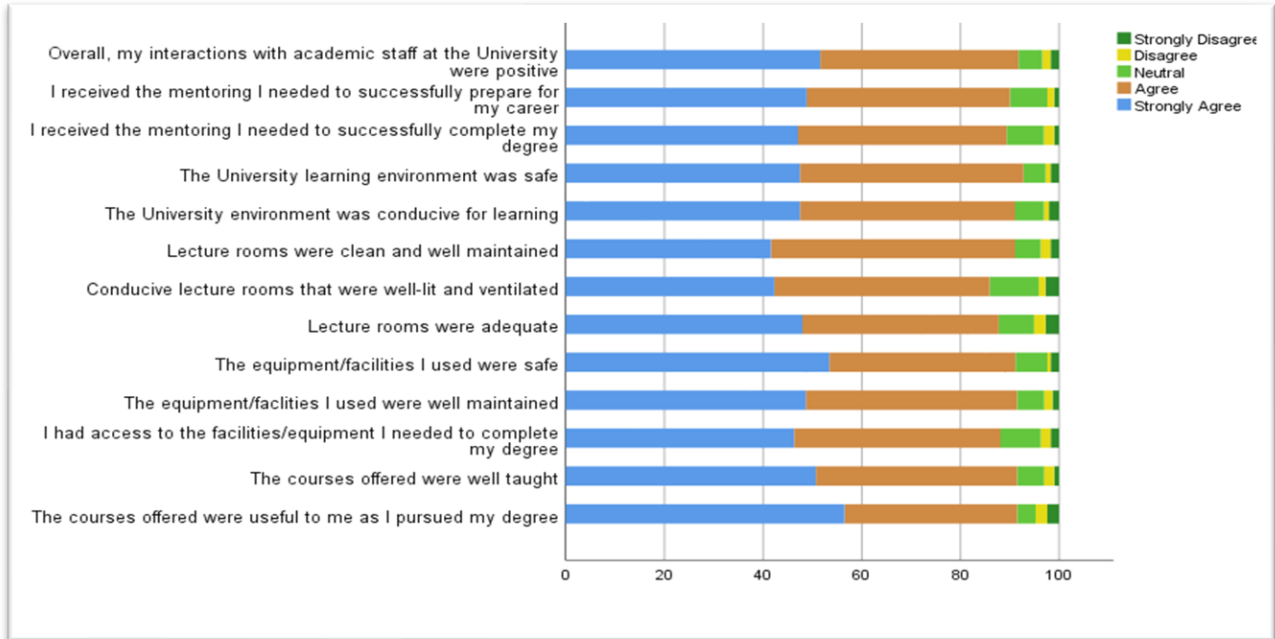


Fig 1: Graphical display of the responses obtained for the impressions of the quality of education

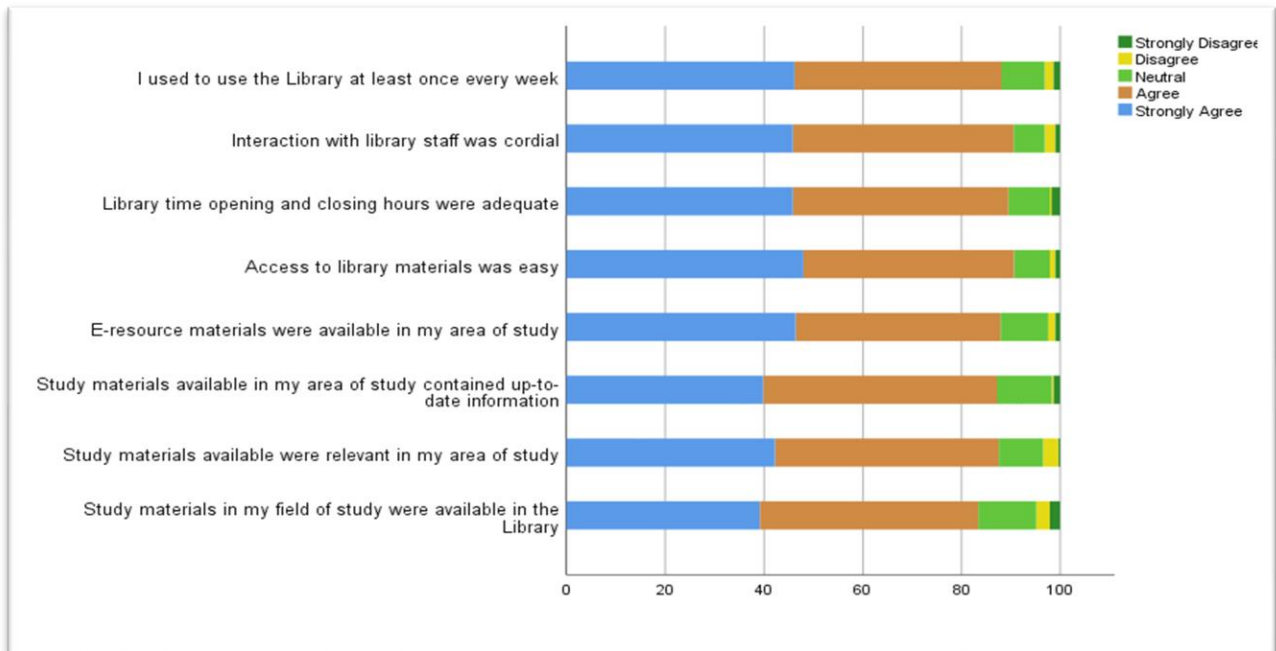


Fig 2: Graphical display of the responses obtained for the impressions of library services

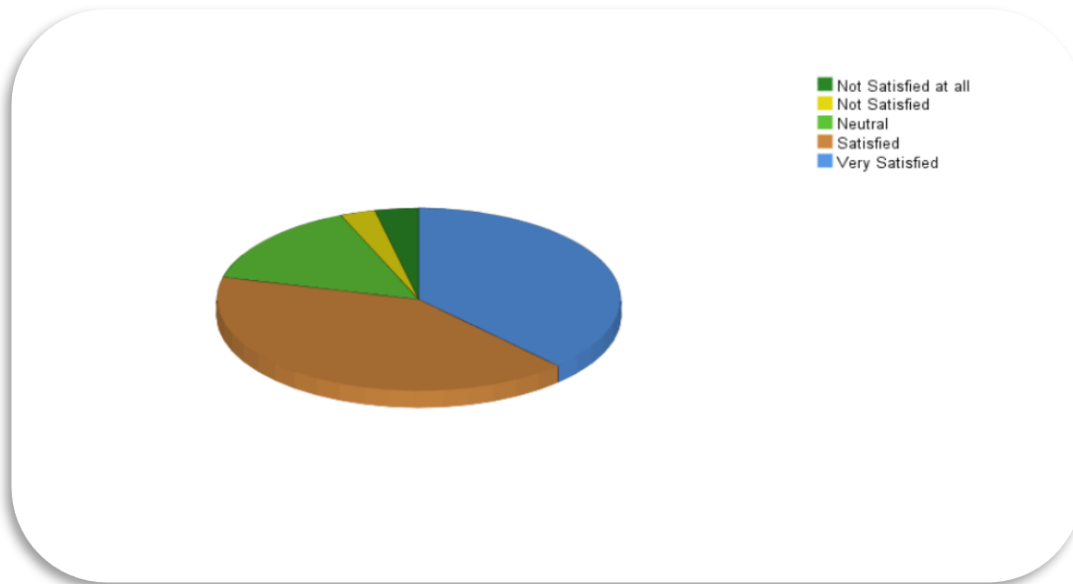


Fig 3: Graphical display of the responses obtained for adequacy of recreational facilities in form of games or sport facilities/equipment

Discussion:

Another crucial outcome of this study is the potential for institutions to enhance student satisfaction in the future by analyzing the responses to individual parameters and implementing necessary reforms and corrective measures. It is the responsibility of the institution to thoroughly analyze and comprehend the feedback received in order to take appropriate action for improvement. For instance, the findings indicate that a larger number of students rated the quality of internet connectivity lower compared to other questions in the ICT infrastructure section. In response, the institution should prioritize efforts to improve the internet bandwidth as a corrective action.

Furthermore, an interesting approach was taken in which students were informed about the objectives and intended learning outcomes associated with various parameters

before providing their feedback. This exercise resulted in an improvement in the satisfaction levels of the students. This highlights the importance of communication and transparency in setting expectations and outcomes, ultimately leading to enhanced student satisfaction.

Thus, institutions can utilize the insights gained from this study to identify areas of improvement and take proactive measures to address them. By focusing on specific parameters and involving students in the process, institutions can work towards creating a more satisfying and conducive learning environment. Continuous monitoring and responsiveness to student feedback are vital for institutions to adapt and enhance their offerings to meet the evolving needs and expectations of students.

6.0 CONCLUSION

The utilization of student satisfaction surveys, such as the exit survey for graduates, serves as an innovative method for gathering valuable feedback on the academic experience, perceptions, and expectations of students in higher education institutions. This study has successfully contributed to understanding students' preferences, likes, dislikes, and their views on the most significant aspects of their educational journey, as well as areas that require improvement.

The developed survey methodology is highly adaptable, allowing for flexibility and customization based on the specific needs of different higher education institutions. It enables various interpretations and analyses, shedding light on multiple parameters and aspects of these institutions. This analysis assists in identifying areas requiring improvement, transforming weaknesses into strengths, and taking appropriate actions to enhance student satisfaction and learning experiences.

By regularly implementing this survey method, institutions can gain valuable insights into the evolving priorities of students, the effectiveness of curriculum delivery, and the factors that significantly contribute to student satisfaction. It also highlights the importance of making students aware of the objectives and intended learning outcomes, which can aid administrators in prioritizing improvements and allocating resources effectively.

Furthermore, this study underscores the significance of continuous quality assessment and improvement efforts in higher education. The developed method serves as a valuable tool for selecting and evaluating parameters that enhance the

overall student experience, leading to higher satisfaction levels. By utilizing this method, institutions can proactively improve facilities, resources, and services to maximize efficiency and meet the evolving needs of their students.

This study presents a reliable, comprehensive, and user-friendly approach for obtaining student feedback and assessing the quality of higher education institutions. It contributes to the ongoing efforts to enhance student satisfaction, improve educational experiences, and ultimately achieve higher levels of success in the realm of higher education.

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Role of Monitoring Level on Completion Rate of Development Projects in Mandera County, Kenya.

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ABSTRACT

This study was conceived with an aim of finding out the role of monitoring level on completion rate of development projects in Mandera County, Kenya. The objective is to assess monitoring level on completion rate of development projects in Mandera County, Kenya. The study adopted a descriptive survey design where County Government of Mandera officials, questionnaires were given to 160 respondents who were chosen using Krejcie and Morgan (1970) method, a sample of 113 respondents were obtained. After collection of data, it was analyzed and conclusions drawn. The pilot study was conducted on 8 respondents in Mandera West Sub County. Descriptive statistics was used whereby the information was presented into charts, tables and graphs. The results reflect a strong consensus among respondents regarding the role of monitoring levels in supporting project plans and the engagement of stakeholders in planning. Additionally, there is agreement that project plans are designed to mitigate potential risks and establish clear

goals. The study recommends that county governments should plan to have quality standards in place before the projects are implemented

Key Terms: Completion Level Rate of Development Projects; Monitoring Level; Financial Planning; Oversight Frequency

1.0 BACKGROUND OF THE STUDY

Organizations can use monitoring levels as a forecasting technique in order to make plan and budget for the future. Management department uses both department services to estimate the expenditures and revenue of business under the normal conditions of business. In monitoring levels, techniques are used namely: variance analysis, responsibility accounting, adjustment of funds and zero-based budgeting (Abdallah, 2018). Variance analysis compares actual accounting figures to determine whether the variances are favorable or unfavorable. Responsibility accounting on the other hand creates cost center, profit center and investment center which are just like

departments of any organization after which all employees work on the basis of their centers, each with specific targeted performance (Roffee and James 2017). For the adjustment of funds technique, top management takes the decision to adjust fund from one project to other project. In the Zero-based budgeting (ZBB) technique, every next year budget is made on nil bases. It can only be possible, if your estimated income will be equal to the estimated expenses.

Monitoring levels involves the preparation of a budget, recording of actual achievements, ascertaining and investigating the differences between actual and budgeted performance and taking suitable remedial action so that budgeted performance may be achieved effectively. Monitoring levels is the system of controlling costs through budgets (Amadi, 2017). It involves comparison of actual performance with the budgeted with the view of ascertaining whether what was planned agrees with actual performance. If deviations occur reasons for the difference are ascertained and recommendation of remedial action to match actual performance with plans is done (Abdallah, 2018). To achieve effectiveness in budget preparation the management team of the firm should ensure the budgets for the allocated projects are implemented with the stipulated time and costs to enhance efficiency. The basic objectives of monitoring levels are planning, coordination and control. It's difficult to discuss one without mentioning the other (Geletaw, 2018). Most Privately owned organizations in Somaliland have shifted focus to monitoring levels as a way of enhancing effectiveness in their services. Recognizing the role of monitoring levels has gained attention which has led some organizations to establish departments for implementation. This has attributed budget monitoring and project implementation committees as an integral part of the

administrations to most private organizations in Africa (Hertati, 2015).

Studies have been done in relation to monitoring levels globally: Harelimana (2017) examined the association between effects of monitoring levels on performance using a sample of large US cities Financial Bonds and found that effective level of monitoring levels is significantly and positively related to bond rating. Hassan, Ongayo and Osora (2019) carried out a study in Denmark on measuring efficiency and effectiveness of a nonprofit's performance, it was found that monitoring levels was one of the important tools in achieving efficiency of in nonprofit making organizations. The results of the study revealed that effective monitoring levels improves performance of local authorities. Isaac, Lawal and Okoli, (2015) argued that budgetary participation affects return on capital employed, return on assets to a great extent. Kariuki (2014 in his study of the effects of the budgeting process on budget variance found out that budget preparation, monitoring levels and budget implementation significantly influence budget variance.

1.1 Statement of the problem

Mandera County has been experiencing delay in the rate of which projects are completed. Many projects lag behind time while others fail due to poor monitoring controls and strategies. A survey of projects in Mandera county, found that there was low completion rate of work and as a result, the projects were behind schedule. Audit report by the senate committee in the years 2016/17 revealed that there were 6 stalled projects namely Construction of County Headquarters, Mandera, Construction of the Governor's Residence, Mandera, Construction of County Rest House, Mandera, Construction of County Assembly of Mandera and Construction of Regional Livestock Market

of Mandera (Hassan, 2018). From these audit reports above, it is evident that the completion rate of projects in Mandera County has been slow with high inflated cost, there exist a gap between set timelines, the cost of the project and completion within the time and the set budget and therefore the need to carry out the study on effect of monitoring levels on completion rate of development project in Mandera County. This paper delves into whether monitoring levels assist in success rates of projects in Mandera county.

Objective

To assess the effect of monitoring level on completion rate of development projects in Mandera County, Kenya

2.0 LITERATURE REVIEW

2.1 Monitoring Level and Completion Rate of Development Projects

Monitoring the progress and completion rate of development projects is essential for ensuring their successful execution. Before a project begins, a baseline plan is established, outlining the project's scope, objectives, timeline, budget, and key performance indicators (KPIs). This serves as the basis for monitoring progress. Project managers and teams should provide regular status reports that include updates on project activities, milestones achieved, expenditures, and any deviations from the baseline plan (Moretti et al., 2017). These reports can be weekly, monthly, or at other intervals as determined by project requirements. KPIs are specific, measurable metrics that are used to gauge project progress. They can include items such as completion of project phases, adherence to timelines, budget utilization, and quality benchmarks (Al Mhirat and Irtemeh, 2017). Depending on the nature of the project, site visits and inspections may be conducted to verify that work is being performed according to specifications and standards. This can be especially important for construction and infrastructure projects.

Monitoring expenditures and budget utilization is crucial to ensure that a project stays within its allocated budget. Deviations from the budget should be analyzed and addressed promptly (Abdallah, 2018). Regular risk assessments should be conducted to identify potential issues that could impact project completion. This includes both internal and external risks, and mitigation strategies should be developed. Effective communication with project stakeholders, including government agencies, funders, and the public, is essential. Regular updates on project progress and any changes to the plan should be shared transparently (Nickson, 2017).

For projects where quality is a critical factor, a monitoring component for quality control should be in place. This may involve inspections, testing, and adherence to industry standards. Changes in project scope, objectives, or requirements should be carefully documented, assessed, and approved as necessary. These changes can impact the project's timeline and budget (Harelimana, 2017). Once the project is near completion, a thorough verification process is conducted to ensure that all objectives have been met, and the project meets the predefined quality standards. This may involve final inspections, testing, and acceptance by stakeholders. After project completion, it's important to conduct a post-project review to identify successes and areas for improvement. These lessons can inform future projects and improve overall project management practices (Harelimana, 2017).

To maximize a project's performance and enhance the probability of its success, every organization needs to build a better project management process dedicated to meeting the customer's most important needs (Harelimana, 2017). Application of **Six Sigma** together with robust and efficient project management can be considered an effective tool in driving and accelerating the

development and delivery of a high-quality product within budget and timelines. Six Sigma within organizations is primarily practiced as a process improvement methodology to drive operational and business excellence (Nickson, 2017).

Six Sigma is a disciplined, *data-driven approach* and methodology for **eliminating defects** in any process—from manufacturing to transactional and from product to service. The fundamental objective of the Six Sigma methodology is the implementation of a measurement-based strategy that focuses on **process improvement** and variation reduction, thereby bringing about organizational change by aligning people and processes. This section discusses and demonstrates the power of Six Sigma in achieving **project management quality**, and is particularly useful for project management and senior project and program managers (Moretti et al., 2017).

Quality is a fundamental requirement in effective project management. Effective project management entails a steady focus on quality management as well as achievement of all user requirements as defined during the requirements engineering phase of project implementation (Al Mhirat and Irtemeh, 2017). Quality assurance must be executed throughout the project development cycle as a new normal in reducing errors and challenges during project development. Conducting quality assurance throughout the project development cycle has many benefits to both the project as well as the project development team. Understanding the research approach to use is critical in achieving high-quality findings in projects. There is a need to understand how to utilize deductive, inductive, and abductive research reasoning when conducting project implementation (Harelimana, 2017).

Project quality management is the process required that ensures that the project meets requirements and expectations of the

beneficiary involved in the project consists of: identification of relevant quality levels for the project and how to meet them, planned activities implemented quality system intended to ensure that the project will be within the parameters of quality planning, monitoring results of project activities and assessing their quality standards, ways to eliminate the causes which led to unsuccessful and continuous improvement (Amadi, 2017). Project cost estimates are a key component of the planning process and provide a basis for key decisions. Budgetary cost estimate represents a prediction of quantities, cost, and/or price of resources required by the scope of an asset investment option, activity, or project. As a prediction, an estimate must address risks and uncertainties. Estimates are used primarily as inputs for budgeting, cost or value analysis, decision making in business, asset and project planning, or for project cost and schedule control processes (Abdallah, 2018). Budgetary cost estimates are determined using experience and calculating and forecasting the future cost of resources, methods, and management within a scheduled time frame (ISO, 2010). An activity cost estimate is a quantitative assessment of the likely costs of the resources required to complete schedule activities. This type of estimate can be presented in summary form or in detail. Costs are estimated for all resources that are applied to the activity cost estimate. This includes, but is not limited to, labor, materials, equipment, services, facilities, information technology, and special categories such as an inflation allowance or cost contingency reserve (Amadi, 2017).

The level of quality can be assessed with costs. It is normal for an organization to strive for the high-quality products and services, but this procedure should not result in expenses that may cause, in (Amadi, 2017). Thus, it is necessary to develop a budget for

improving the quality and compared with expected profit. It is also necessary to establish special measures for sub-suppliers quality assurance, quality system continuously monitored, providing feedback information. Data quality control is essential to ensure the integrity of results from quality improvements projects. Feasible methods are available and important to help to ensure that stakeholder's decisions are based on accurate data (Geletaw, 2018).

4.0 RESEARCH METHODOLOGY

This study was conducted using the descriptive survey approach. The target population of the study shall be staff members of Mandera County government. The study targeted the county government head office project, Water projects education projects, road projects and health projects. The study adopted a descriptive survey design where County Government of Mandera officials, questionnaires were given to 160 respondents who were chosen using Krejcie and Morgan (1970) method, a sample of 113 respondents were obtained. After collection of data, it was analyzed and conclusions drawn. The pilot study was conducted on 8 respondents in Mandera West Sub County. Descriptive statistics was used whereby the information was presented into charts, tables and graphs.

5.0 FINDINGS, CONCLUSION AND RECOMMENDATION

Monitoring Level

Monitoring levels support the overall project plan
 Stakeholders are involved in planning for the projects
 The projects plans mitigate against potential risks
 Project plans set up clear goals

The monitoring levels allows monitoring and control 97

Source: Researcher (2023)

Table 2 shows summary on Monitoring Level, on whether Monitoring levels support the overall project plan, majority of respondents disagreed as shown by (Mean =1.5567 Standard Deviation=0.49936), this shows that this shows that monitoring levels influence the overall plans for the implementation of the projects as plans are anchored on monitoring levels. Majority of respondents disagreed that stakeholders are involved in planning for the projects as shown by (Mean =1.9897 Standard Deviation=0.33834), this shows that the county government officials did not involve the stakeholders in planning of the projects this led to poor management of project processes to implementation. Respondents were neutral that the projects plans mitigate against potential risks as shown by (Mean =2.6701 Standard Deviation=0.47262), this shows that the county government staff did not allocate finances to caution the projects for the potential risk that may arise during the implementation of the project.

On whether project plans set up clear goals, majority of the respondents were neutral as shown by (Mean =3.0103 Standard Deviation=0.10153),this shows that the county government had clear goals by did not fit within the budget. Majority of the respondents agreed that the monitoring levels allows monitoring and control as indicated by (Mean =3.9588 Standard Deviation=0.1654), this shows that the

county government allocated for monitoring and evaluation. Interpretation 1.9897 .33834 The results reflect a strong consensus among respondents regarding the role of monitoring levels in supporting project plans and the engagement of stakeholders in planning. Additionally, there is agreement

that project plans are designed to mitigate potential risks and establish clear goals. Respondents also recognize the budget allocation's effectiveness in enabling monitoring and control. Table 8 offers valuable insights into respondents' perceptions of the planning-related aspects within county government projects. The strong consensus across statements underscores the significance of well-

structured project plans, stakeholder engagement, and effective monitoring levels. These insights can guide the county government in fostering collaborative planning processes, risk mitigation, and financial oversight, ultimately contributing to the success of projects and stakeholder satisfaction.

Table 3: Coordination Level

	N	Mean	Std. Deviation
Monitoring levels allows monitoring of costs	97	1.4639	.50129
Monitoring levels allows earned value	97	2.0103	.30601
Monitoring levels allows cost efficiency	97	2.4742	.52227
Monitoring levels allows planned value	97	2.7010	.48229
Monitoring levels allows monitoring of cost variances	97	4.3196	.46874

Source: Researcher (2023)

Table 10 shows a summary on coordination level, majority of respondents disagreed that monitoring levels allows monitoring of costs as shown by (Mean =1.4639 Standard Deviation=0.50129), this shows that there was no proper monitoring of cost as the implementation process. On whether monitoring levels allows earned value, majority of disagreed as evidenced by (Mean =2.0103 Standard Deviation=0.30601), this shows that the projects did not realize earning value which has been occasioned by poor visibility study during implementation. Majority of the respondents disagreed that monitoring levels allows cost efficiency as shown by (Mean =2.4742 Standard Deviation=0.52227), this shows that the cost efficiency was not realized during the project implementation process. On whether monitoring levels allows planned value, majority of respondents were neutral as shown by (Mean =2.7010 Standard Deviation=0.48229), his shows that the projects did not realize planned value which was due to poor budget controls. Majority of

respondents strongly agreed that **monitoring levels allows monitoring of cost variances as evidenced by** (Mean =4.3196 Standard Deviation=0.46874), this shows that the monitoring levels allowed monitoring of projects.

The results highlight a strong consensus among respondents regarding the positive impact of monitoring levels on monitoring costs, earned value assessment, planned value tracking, and cost variance monitoring. There's also agreement that monitoring levels contributes to cost efficiency, although opinions vary slightly. Table 9 offers significant insights into respondents' perspectives on cost-related elements within county government projects. The strong consensus across statements underscores the effectiveness of monitoring levels in facilitating cost monitoring and value assessment. By leveraging these positive perceptions, the county government can enhance cost efficiency and project outcomes while ensuring effective financial oversight and control.

6.0 CONCLUSION

The projects are implemented without proper quality standards due to poor budgetary planning at the initial stages of the project. The respondents did not understand the importance of proper monitoring levels on quality. Proper monitoring levels allows purchase of quality materials used in construction of the projects. Monitoring levels greatly influences the achievement of project goals. Respondents were not aware how they can allocate finance to improve the quality of projects implemented. Quality of the projects are important in terms of ensuring that the county residents are safe.

Majority of the projects in the county we not within the projected cost which was due to poor monitoring levels. The projects in the county did not have a proper cashflow due to poor monitoring levels put in place. The resources allocated for the projects was much more that what was budgeted, this led to projects taking too long to be completed. A budgeted fund for the projects was not based on the county government revenue. Funds were allocated according to the goals of the organization.

7.0 RECOMMENDATIONS

The county government should plan to have quality standards in place before the projects are implemented. The county government staffs needs to undergo training on management of quality during projects implementation. The county government monitoring levels should achieve quality goals by ensuring that the county resident's benefits from the project that are safe to be used. Given the emphasis on quality and its perceived impact on project outcomes and community benefits, it would be prudent for the county government to continue promoting transparent processes related to budget allocation and quality standards.

7.1 SUGGESTION FOR FURTHER STUDIES

Studying the impact of monitoring levels on the implementation of projects in Mandera County is a valuable research endeavor. It involves understanding how the management of financial resources through monitoring levels processes affects the successful execution of projects in the county. Here are some areas for further study on this topic:

- a) **Effectiveness of Monitoring levels Systems:** Assess the design and implementation of monitoring levels systems in Mandera County. Determine how well these systems align with project goals and objectives. Analyze the strengths and weaknesses of the existing monitoring levels mechanisms.
- b) **Project Implementation Performance:** Evaluate the success rates of projects in Mandera County, considering factors such as completion within deadlines, adherence to quality standards, and cost efficiency. Examine the relationship between monitoring levels practices and the overall performance of project implementation.

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Air-Conditioning Control Optimization for Energy Conservation

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ABSTRACT

One of the challenges facing the world is the need to feed the ever-growing population. Agricultural engineers are working towards development of the right infrastructure that will enhance food production and processing. Smart green houses are being worked on and we look forward to the implementation of such ideas, we also have to think of what else needs to be put in place if at all we have to achieve their efficacy that we so desire. Heating, ventilation and air conditioning systems are part of the support systems that will come in demand as we purpose to actualize majority of the ideas. Whether in the green houses or in the processing firms, AC units are required to maintain the optimal space conditions for efficiency in operation. Technology is playing a key role in digitization of these systems with sensors and microcontrollers being used extensively. Energy conservation remains the main focus of scientists and engineers working on these

systems. In line with working towards developing energy efficient systems for use in offices, research was carried out to optimize the control of air conditioners for energy conservation purposes. The research was geared towards having an air conditioner that is efficient in terms of energy consumption and in its operation putting into consideration the working environment of food processing firms and the long working ours. Temperature, proximity and passive infrared detectors have been used as smart sensors. The system was designed such that when room occupants' approach a room, the system is activated and rapidly cools down or warms up within a predetermined time depending on the size of the room. As long as there is an occupant in the room, the system quickly settles into the set conditions. When there is no one in the room, the system needs not be working and therefore switches off. This ensures that the system only works when needed hence helps in energy conservation

thus reducing bills paid by home owners and companies. The designed prototype is able to detect room occupancy, responds perfectly to temperature changes as well as human presence in the field of view of the PIR with an overall performance efficiency of 55.95% which is a good start towards actual implementation of an energy efficient A.C. system.

Keywords: Energy conservation, energy efficiency, performance efficiency, air conditioning system

1. 0 INTRODUCTION

An air conditioner (AC) is a system or a device that controls the quality of air in a defined, usually enclosed area via a refrigeration cycle in which warm air is removed and replaced with cool air or cold air is removed and replaced with hot air.

The essence of having an AC is to improve the comfort of occupants by heating up a room or removing heat and moisture from the interior. A smart AC was introduced recently which utilizes Wi-Fi for its control via a smartphone.

A consideration which has been made in redesigning ACs is energy conservation to ensure that their cost of operation reduces. For energy efficiency purposes, the following modifications on an AC were adopted through this research;

- i. A PIR sensor was mounted outside the building and at the entrance to monitor occupants as they approach it and thus the system is activated prior to someone entering the building.
- ii. A proximity sensor was mounted inside the building detects room

occupancy. This ensures that the system only works when there are occupants in the room. Therefore, system reduces the running time of the air conditioner hence energy conservation is achieved.

Peter A. et al., (2013) designed a smart air conditioning control by wireless sensors. Wireless sensors are not limited to wired installations and can be deployed strategically close to the fluctuating thermal sources. Wireless sensors can be used to develop intelligent monitoring systems. Their research only considered a single sensor control setting and the main recommendation to develop it was on research in interaction between multi-input and multi-control systems in a networked setting which is an area considered in this research.

Smart phones, devices that can be worn, thermal and motion sensors were interlinked as smart sensors for control of air conditioners in a study by Cheng and Lee (2014). The system obtained feedback information from these devices. Their system was effective in providing a conducive environment and achieved energy conservation goal and it utilized wireless devices.

Wireless sensors have a promising potential; however, they introduce battery lifetime challenge. They have to operate for long periods and therefore being battery powered; their battery life span has to be maximized. The communication operation consumes a lot of energy and therefore it reduces the battery life time. Communication consistence has to be maintained for effectiveness of the system.

Control effectiveness is also another area where a big challenge was met by Cheng and Lee (2014). Considering that energy consumption is inversely proportional to efficiency (Riches, 1989), sleeping of the device most of the time would lower energy consumption and therefore increasing battery life but would reduce the effectiveness since the system will not be running hence sensing will not be taking place. Balancing energy consumption with efficiency is key to the usefulness of these devices more so for smart applications.

A smart air conditioner system for adaptation to a smart home system was proposed by Yang et al., (2016). The system used sensors to control the levels of temperature and it was Wi-Fi controlled. Entirely, its control dependent on internet and it had limitations on the geographical areas to be used since not all areas have internet connections.

An energy saving controller for air conditioning in large buildings was designed and implemented by Liangh (2018). This system could also switch on and off the lights and switch on the systems when an occupant enters a room. However, it majorly controlled the level of humidity in the rooms.

Erham and Samudra (2020) designed an AC system which could be controlled remotely in the convenience of their houses. Similar to what Mehmet and Hayrettin (2018) did, they could switch it on prior to arrival and if they noticed that maybe they had left it on they could switch it OFF for purposes of energy conservation providing justification for any study towards methods of increasing energy conservation. The main challenge with their

system was that it was not fast in its operation. It still had to be controlled manually via a smartphone or maybe a laptop. The system was not applicable to areas without internet connectivity. Assuming that one leaves the AC running and only realizes after he/she gets home, we can think of how much energy that AC will have consumed unnecessarily.

Our research showed that indeed we can be able to modify the existing air conditioning systems for energy conservation purposes. Placement of the PIR at the entrance of the building and the proximity sensor in the building to detect room occupancy proved that indeed there is a great hope in this line of research which was demonstrated by the working of the prototype designed in this research.

2.0 EXPERIMENTATION

2.1 Detecting a person approaching a building

The PIR has three pins, the input, the ground and the output which are connected to a 5V, GND and GPIO pins of the microcontroller, respectively.

2.2 Detecting the temperature inside a room

The temperature sensor gives a HIGH output when the temperature is high and this triggers the microcontroller to switch ON the fan. In case the temperature is low, the sensor will give a LOW output and this triggers the heater to be switched ON. In case of optimal temperature conditions, no action is taken, thus the system will not be set ON.

2.3 Detecting the presence of occupant inside a room

The PIR having detected an occupant coming in to the room, and the signal from the temperature sensor having been fed to the microcontroller, the system is set is either set ON or maintained OFF. The system will only go ON if the PIR has detected an occupant coming into the room and the temperature levels in the room are not within the preset range. A timer is set such that after three minutes, if the occupants will not have entered the room, then the system goes OFF.

When occupants enter into the room, the output signal from the proximity sensors installed in the room will give a HIGH output indicating room occupancy and this signal will maintain the system working until the required temperature conditions are achieved. The system continues to work as long as the signal from the proximity sensor is HIGH and the required temperature has not yet been attained.

If occupants are still in the room, the signal from the proximity sensor will remain to be HIGH. The temperature sensor signal will vary depending on the temperature changes in the room. If the conditions are conducive, the micro-controller disconnects therefore the system stops working until again the temperatures falls or raises.

When the occupants leave the room, signal from the proximity sensor goes LOW and this is interpreted by the control program to mean that the occupants have left and this triggers the microcontroller to switch OFF the system.

2.4 System operation

A passive infrared sensor measures infrared radiation emitted from objects that generate heat and therefore infrared radiation in its field of view. Basically, they detect the change in temperature in comparison with the surrounding temperature.

When a person enters in its field of view, infrared radiation from the subject is detected. Due to motion, there will be variation in the intensity of the infrared radiation. This causes a change in the output voltage generated. Having detected motion, the PIR outputs a HIGH signal on its output pin which switches ON the fan or the heater depending on the temperature state as measured by the temperature sensor in the building.

Upon room occupants entering the room, the system will be already working. For continued operation, proximity sensors are integrated in the system to detect the presence of individuals in time. The moment presence of occupants is confirmed in a room, high output signal maintains the system working. The temperature sensor will be measuring the temperature levels. When optimal temperature conditions are achieved, the microcontroller switches OFF the air conditioning system. If the temperature falls below or raises above the pre-set level the output of the temperature sensor will be LOW or HIGH respectively, then triggers the system to start working.

When occupants leave the room, the proximity sensors give a LOW output which will switch OFF the system.

3.0 RESULTS AND DISCUSSION

3.1 Cooling capacity

The cooling capacity for a room is defined as the heat load in a room that has to be removed in order to achieve a certain room temperature and humidity. The recommended conditions are 24°C and 55% relative humidity (Percy et al., 2020).

To calculate the cooling capacity for an AC, the volume of the room to be cooled is first determined then multiplied by six since every time the ON/OFF type of compressor starts to run, its power consumption is 6 times higher than when running steadily (Charisis and Theoklitos, 2012).

The number of occupants to occupy that room (N) is also considered. This will help in knowing the amount of heat to be generated by the occupants. Each person produces approximately 147 W (ASHRAE, 2017) of heat for normal office related activity. The amount of heat generated shall therefore be $147 \times N$.

Letting the volume of the room to be V, we multiply by 6 to get

$$6V = M \tag{1}$$

and

$$147 \times N = K \tag{2}$$

Adding M and K gives us the simplified cooling capacity (H).

$$H = M + K \tag{3}$$

Eq. 3 holds true on condition that heat from the other sources is negligible otherwise an allowance should be provided to accommodate that when designing an AC for a building.

3.2 Space Heat Gain

The heat coming from different sources through conduction, convection, solar radiation, lighting, human beings, heat generating equipment etc. does not go immediately to heating the room. Only some portion of it is absorbed by the air in the conditioned space instantaneously leading to a small change in its temperature. Most of the radiant heat is first absorbed by the internal surfaces, which include ceiling, floor, internal walls, furniture etc. Due to the large thermal capacity of the roof, floor and the walls, their temperature increases slowly due to absorption of this radiant heat. The radiant portion introduces a time lag between maximum insolation and the temperature on the air cycle in the conditioned space and also a decrement factor depending upon the dynamic characteristics of the surfaces. Due to the time lag, the effect of radiation will be felt even when the source of radiation is removed (ASHRAE, 2017). This explains why the sensed temperature in a room may rise slightly above the required temperature and the reason cooling process has to begin instantly to stabilize the system.

3.3 Data presentation and analysis

In this research, three sensors namely PIR, ultrasonic and temperature sensors were used to actualize the system. The sensors were mounted strategically to maximize their efficiency. The PIR is mounted at the entrance of the building such that the subject cuts across its field of view so that its two sensor elements are sequentially exposed to the infrared radiation. The system responded to signals from the PIR up to a distance of 8 m (as shown in table 1) beyond which the system could not respond to any motion.

Table 1: A table showing the response of the prototype with variation in subject distance from the PIR.

Distance of subject from the PIR (m)	Did the system respond (Yes)
1	Yes
3	Yes
5	Yes
7	Yes
8	Yes
9	No

The ultrasonic sensor responded even when inclined at different angles. This test was necessary since in a room people can have different sitting positions. The maximum angle for its response was determined to be 15°. Beyond that, room occupancy could not be detected (as shown in table 2)

Table 2: A table showing the response of the prototype with variation in subject distance from the PIR

Distance from the ultrasonic sensor (m)	System response (yes/no)	Response of the system due position Angle of the subject from the sensor (Yes/No)			
		5	10	15	20
1	Yes	Yes	Yes	Yes	No
2	Yes	Yes	Yes	Yes	No
3	Yes	Yes	Yes	Yes	No
4	Yes	Yes	Yes	Yes	No
4.5	Yes	Yes	Yes	Yes	No
4.6	Yes	Yes	Yes	Yes	No
4.7	No				

The fabricated prototype air conditioner worked well and was effective in controlling the temperature in a room. It has an android app where users can monitor the temperature inside the room as shown in figure 2. It is through the same android app where users can operate manually the designed air prototype. It displays the temperature level at any particular instant with an accuracy of 0.001°C. The Wi-Fi range of the raspberry Pi

3 microcontroller was tested and found to be 10 m in open space, distance which reduced slightly to 8 m when kept in a room. This could be as a result of obstruction of the waves by the walls of the room and the equipment in it.



Fig. 2: A picture of the dashboard for the designed smart air conditioner android app.

The energy (U_1) needed to raise the temperature of the room by 4°C is given by;

$$(U_1) = mc.\Delta T$$

(4)

where: m – Mass of air in the room (ρV) ($\rho = 1.275 \text{ kgm}^{-3}$)

c – Specific heat capacity of air ($c = 1.2 \text{ kJkg}^{-1}\text{k}^{-1}$)

ΔT – change in temperature

$$U_1 = 1.2 \times 1275 \times 4 \times 2.4 \times 4$$

$$U_1 = 58,752 \pm 0.18 \text{ J}$$

The energy (U_2) dissipated by the heater in the prototype AC can also be calculated

$$(U_2) = Power \times Time$$

(5)

$$= 500 \times 3.5$$

$$U_2 = 105,000 \pm 0.014 J$$

The difference in the values can be accounted for in-terms of entropy based on the second law of thermodynamics which states that in any closed system, the entropy of the system will remain constant or increase (Boles et al., 2011). This means that heat transfer cannot occur spontaneously from cold to hot or hot to cold. Entropy is not conserved but increases in all real processes. Entropy is directly related to the fact that not all heat transfer can be converted into work. Eventually, the heat energy has to spread until evenly distributed.

The efficiency (E) of the prototype is given by;

$$(E) = \frac{\text{work output}(U_1)}{\text{work input}(U_2)} \times 100\%$$

(6)

$$\begin{aligned} &= \frac{58,752}{105,000} \times 100\% \\ &= 55.95 \pm 0.65 \% \end{aligned}$$

Most of the existing systems have efficiencies ranging between 10.0 -17.0 with a few going as high as 23.45% (Yang et al., 2016). The expectation is that the higher the efficiency the lower the energy consumption of the AC unit. That is to say high efficiency

air conditioners drastically reduce energy costs.

The results can be used to approximate the time it would take the system when used in different rooms or even the time it would take to bring the room to a preset temperature. In case the temperature rises above the desired value, the cooling process begins automatically as shown in figure 5.

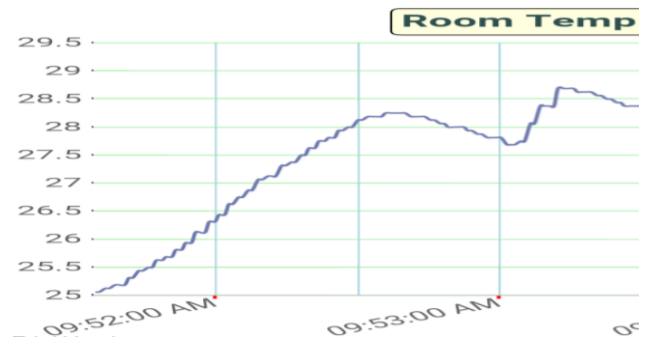


Fig. 5: A picture showing the automatic start of the cooling process after the desired temperature has been attained

4.0 CONCLUSION

A smart air conditioner was designed and fabricated and it proved to have high efficiency in its working. The system was able to detect a person approaching a building by use of the PIR and respond effectively. It was also able to detect room occupancy by use of a proximity sensor placed inside the room. Temperature levels inside the room were detected and optimal levels were maintained by this system as well. The working of the system can be monitored online through an android app as well as a web platform in a computer.

The expected objectives of an intelligent air conditioning control include human comfort and energy conservation and should be evaluated by;

1. Human comfort

This is determined by the response of system during the specified time to attain the required temperature in indoor which is basically a numerical value that varies with climatic conditions. The response of this system is actually fast and therefore human comfort is assured.

2. Energy consumption

Switching ON of the system only when needed then back to sleep mode when not needed is a great way of conserving energy rather than having a system that runs all through. This is taken care of in this research by having three sensors integrated in the control unit of the intelligent prototype and this aids in energy conservation.

It would therefore be in order to conclude that Implementation of this system would be a great boost in automation of air conditioners since we would have a system which is cost effective in-terms of operation. This is based on grounds that it would only run when needed. Reduced running time would mean that less energy is consumed hence energy conservation is achieved.

The efficiency of the prototype was found to be 55.95% which is higher than the 23.45% HVAC efficiency recorded so far. This shows that there is room for improvement on the existing systems to enhance energy conservation.

5.0 RECOMMENDATIONS

Several modifications can be made to this system to have a more advanced and more efficient system.

- i. A camera can be introduced for face recognition at the entrance in place of the PIR thus enhancing security and prevent the system from being

triggered by false signals like passers-by.

- ii. Access to the system through its Wi-Fi is currently within the premises in which it has been installed. Any improvement to have it accessed at different places far from the area it is installed would increase its efficiency.
- iii. The possibility of having other sensors on the system can still be explored to increase its utility. Example: we can have sensors to detect radiations emitted by the electronic components in buildings and hence raise alarm in case they rise above the recommended exposure.

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**Women's Role in Advancing Preventive Healthcare for Universal Health Coverage in Africa:
A Comprehensive Examination of Kenya's Universal Health Coverage**

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ABSTRACT

This paper explores the pivotal role of women in advancing preventive healthcare for the attainment of Universal Health Coverage (UHC) in Africa. Despite the global emphasis on UHC, the predominant attention has been on curative healthcare, neglecting crucial preventive measures. The study investigates resource mobilization methods for preventive healthcare, assesses the current state of UHC in Kenya, and identifies challenges in meeting the conditions for UHC. The literature review underscores the significance of UHC, incorporating preventive and curative care, while emphasizing the need for equitable access to quality services. Women's involvement in addressing nutritional challenges, ensuring proper sanitation, and contributing to resource mobilization efforts for successful UHC is highlighted.

Challenges in health financing policies, resource allocation, and service delivery inefficiencies are discussed. Findings reveal the importance of preventive healthcare in achieving UHC efficiency, coupled with challenges in health financing policies and service delivery inefficiencies. Women play a crucial role in promoting preventive healthcare, especially in addressing nutritional challenges and ensuring proper sanitation. The study also uncovers challenges and gaps in the current healthcare approach. The paper concludes by recommending advancements in preventive healthcare to reduce disease prevalence and ensure UHC efficiency. It highlights the importance of collecting sex-segregated data for informed and gender-sensitive management in UHC. Recommendations extend to targeted interventions in health financing policies, resource allocation, and service delivery mechanisms. Future

directions is recommended for studies on the role of women in preventive healthcare to advocate for continuous monitoring and adjustment of health financing policies and resource allocation strategies and enhance UHC efficiency. This comprehensive exploration provides insights for policymakers, healthcare practitioners, and researchers aiming to strengthen UHC in Africa.

Key words: Universal Health Coverage, preventive healthcare, women. financing, inclusion, equity

1.0 INTRODUCTION

Africa Grapples with the need to provide Universal health Coverage (UHC) to its citizenry. Consequently, UHC is a key concern in Africa. This informed the development of Kenya's big four agenda in 2018. Top on the big four agenda was healthcare, followed by manufacturing, food security and housing and water. The right to quality, affordable healthcare is affirmed in the Constitution of Kenya (2010) and the Sessional Paper No.7 of 2012 (Kenya Law, 2010). Acquisition of UHC is the main focus in the healthcare agenda. The aim of the UHC in Kenya is to ensure that every person can access medical care regardless of economic status.

Efforts to Finance health care began in the post independence period by introducing mandatory health insurance for all employees earning above Ksh 1000 per month in Kenya (Ministry of Medical Services, 2023). Changes were brought in that saw the introduction of a medical scheme run by the government under the National Hospital Insurance Fund (NHIF). In this connection, pilot schemes for UHC were made operational in four counties in Kenya.

Nevertheless, a lot of attention has been placed on curative healthcare as opposed to preventive health care.

According to World Health Organization, Universal Health Coverage comprises preventive and curative or palliative care (World Health Organization, 2019). Moreover, UHC requires equitable access to quality services. Equitable access to quality services entails providing high value services to all those that need it; whether preventive or curative. It also involves availing essential medicines and inclusion of traditional medicines in health systems. This requires the provision of proper policies and regulatory mechanisms; adequate human resource with the right combination of skills; and proper distribution of personnel in different locations according to need. There are gaps in meeting the mentioned conditions for UHC calling for decisive action in meeting them. In ensuring inclusivity, women have a role to play in bridging the need gap. However, as research shows, less women and engineering are involved in upper-level positions (AAU, 2018).

UHC is also stands out significantly because it is a key part of the Sustainable Development Goals (SDGs). In this connection, an index for measuring the achievement of UHC (SDG 3.8.1) was developed from a study of 183 countries where 16 tracer indicators, categorized in four groups were used. The four categories were reproductive, maternal, newborn and child health; infectious disease; non-communicable diseases; and service capacity and access (Hogan, Stevens, Hosseinpoor, & Boerma, 2018). The first category on reproductive, maternal, newborn and child health incorporated family planning, pregnancy and delivery care, child

immunizations and child treatment. All these revolve around the woman in terms of personal health and that of the child. The second category involving infectious diseases takes into account tuberculosis treatment; Human Immune-deficiency Virus treatment; malaria prevention; and water and sanitation. Preventive healthcare begins to be emphasized in this category and is useful if efficiency is to be attained in UHC. In the third category regarding non-communicable diseases, the tracer indicators were prevention of cardiovascular disease; management of diabetes; cancer detection and treatment; and tobacco control. This category, further stresses the importance of preventive health care in reducing cases of infection for efficiency in UHC. The last category was service capacity and access, which had the following tracer indicators: hospital access; healthcare worker density; access to essential medicines; and health security which encompassed international health regulations. The fourth category is mainly concerned with equity and access. The findings from the study suggested a median national index of service coverage of 65 out of 100. Even though the findings suggested quite a high index of coverage (65), the range of the index of coverage was 22-86. This showed that the coverage in some countries was quite low more so the low- and middle-income countries.

Another study that involved determining the levels of trace elements and minerals in a UK brand of baby food suggested that the levels met the requirements of the European Food and Safety Authority (Khamoni, Gardiner, & Hamshaw, 2017). The need for scientists in Africa to have concerted efforts in undertaking research in nutrition and setting standards is eminent. Women in Africa being at the core of the nutritional challenges

should be at the center in driving this agenda. Such efforts are essential in improving the quality of food and ensuring quality nutrition to reduce infections hence efficiency in the UHC. Additionally, poverty is a major setback in Africa where families cannot afford basic nutrition. Women have a role in spearheading the efforts towards ensuring that families get basic nutrition. Moreover, without proper sanitation, all efforts towards healthcare are futile. Proper sanitation includes the need for clean water which is the fifth among the main agendas of development in Kenya. All the above-mentioned areas require resources for successful implementation. Therefore, resource mobilization is a vital component in achieving UHC. It is essential that these resources and efforts be pooled together for meaningful impact.

Despite efforts towards UHC, attention has predominantly been on curative healthcare, sidelining preventive measures. Gaps in meeting the conditions for UHC persist, demanding decisive action. The underrepresentation of women, particularly in upper-level positions, is a critical issue hindering the full potential of UHC.

1.1 Purpose of the research

The purpose of the paper was to examine the role played by women in promoting the attainment of UHC in Africa with a focus on preventive healthcare. A focus on preventive healthcare is important in reducing infection to obtain an affordable and efficient Universal Health Coverage. Women have a key role in driving this agenda as they together with children are most affected by disease. Additionally, women make up the largest population in Africa thus are central to UHC. Preventive healthcare starts with the

type of food consumed from infancy to adulthood. The early life of any person plays a key role in the development of different facets of the mind and body. Proper development depends on the nutrition made available to the body, more so the trace elements and mineral found in the food. With the right quantities of trace elements and mineral, in the food susceptibility to disease is reduced. The healthier the diet, the more prone to diseases one becomes. The other areas of preventive healthcare discussed apart from basic nutrition include sanitation and research.

1.2 Scope of the research

The research examines the role of women in fostering preventive healthcare and describes the methods for resource mobilization towards carrying out Universal Health Coverage in Africa. Here, Universal Health Coverage incorporates research, basic nutrition and sanitation.

On the overall, the pursuit of Universal Health Coverage (UHC) is a critical priority in Africa, underscored by Kenya's Universal Health Coverage. While healthcare takes precedence in the country's agenda, the primary focus is on achieving UHC. Central to this goal is ensuring that every citizen, regardless of economic status, has access to medical care. This paper delves into the role of women in promoting preventive healthcare to achieve an efficient and affordable UHC. It also explores the challenges in meeting the conditions necessary for UHC and the gaps in current healthcare strategies.

1.3 Objectives:

The specific objectives of this research were:

1. To investigate resource mobilization methods for preventive healthcare to support UHC.
2. To examine the role of women in promoting preventive healthcare for the attainment of UHC in Africa.
3. To assess the state of UHC in Kenya, focusing on the inclusion of preventive measures.
4. To identify challenges in meeting the conditions for UHC and gaps in the current healthcare approach.

2.0 REVIEW OF LITERATURE

The literature review highlights the importance of UHC, incorporating both preventive and curative care, and emphasizes the need for equitable access to quality services. It also discusses the significance of women's involvement in addressing nutritional challenges, ensuring proper sanitation, and contributing to resource mobilization efforts for successful UHC.

In Kenya, challenges were noted in providing UHC. These included high poverty levels, weak health systems, low budgetary allocation to health, limited access to vulnerable people and informal sector and misuse of resources (Karanja, 2014). These issues are handled through financing policies. The health financing policies affect any country's economic performance due the fact that health care is among the largest sectors of the world economy taking up about 9.9% of the total global product (Botchwey & Tait, 2002). The Similar findings show that the United States of America. spends about 7% of its Gross National product on health which is higher than United Kingdom. Africa faces problems in financing and provision of

services in health care. Middle income countries have about 2%-6% of GNP. Having about 2% of a middle income's country GNP going to health is merger resource compared to the developed countries. Additionally, the population in the middle-income countries is higher. In the same light, it is not all health care services that are provided given the resource constraints. The issue of the areas to include and those to exclude also requires to be addressed. There are tertiary services that are medically justified and, in some cases, can save lives but are so costly. This means that a large number of people would be denied the lower cost services at the cost of one such life-saving treatment. In this respect, focus on enhancing resource mobilization for priority areas is essential. In addition, there is need for efficiency in resource mobilization; broad and efficient pooling of financial risks as well as expenditure control on unproductive administration or low value services. This will enable the sector obtain higher gains in the money spent. There are lessons that Africa can learn from developed economies. Research shows that weakness in government or lack of trust in government plays a part in hindering their capacity in taking a central role in finance or leadership. For instance, corruption in government hinders. Attempts have been made to estimate the cost providing UHC putting the value at 7.5% of GDP on health. The estimates give 75% of the cost on strengthening the health systems alone (WHO Regional Office for Africa, 2017). On average, the actual expenditure on health was found to be 6.18% of GDP in 2015. This translated to a per capita of \$114 USD from a GDP per capita of \$2,200. Kenya spent 5.2% of GDP on health in the same year. The lowest in Africa was 2.5% of GDP and the highest 18.3% of GDP.

In 2015, the financing of health was from sources that mainly included: Public (Compulsory) financing (47%); out of pocket financing that made up over 44% of the expenditure; Voluntary health insurance (1%); aid or external resources (5%); others (2%). It was recommended that domestic spending for health should be targeted in such a way that those who need it get it. Evidence based resource allocation formulae was emphasized that takes into consideration ease of access to (such as availability of ambulances) and provision of services was recommended. Financing based on performance was also recommended to improve quality of services as in the case of Rwanda, Burundi and Democratic Republic of Congo. Prevention and primary care were highlighted as essential at low levels and bring benefits such as cost effectiveness in health expenditure due reduction in disease transmission. Data are critical in decision making in any sector. Data for monitoring the impact of health financing toward UHC is important. Countries in Africa are focusing on achieving UHC by 2030. Within this goal is the focus on "leaving no one behind" where addressing all forms of injustices is the main agenda. In achieving this goal, the political will is called upon and leadership by the government in planning and financing health. This involves not only leadership in obtaining public revenue to finance health, but also health insurance and strategic purchasing mechanisms that put women who are usually left behind at the centre of health reforms

3.0 RESEARCH METHODOLOGY

Secondary data was collected to determine the resource mobilization methods for preventive healthcare to promote Universal Health Coverage and examining the role of

women in fostering preventive healthcare. Secondary data was utilized to examine resource mobilization methods for preventive healthcare and to assess the role of women in fostering preventive healthcare. The study focused on the current state of UHC in Kenya, considering aspects such as health financing policies, resource allocation, and the efficiency of healthcare delivery systems.

4.0 FINDINGS

4.1 Resource Mobilization Methods for Preventive Healthcare to Support UHC:

Efficient resource mobilization is paramount for the success of preventive healthcare initiatives supporting Universal Health Coverage (UHC). This explores successful models and identifies challenges faced in resource mobilization. By understanding the financial dynamics involved in preventive healthcare, the research aims to provide actionable insights for policymakers and stakeholders. Recommendations derived from this analysis can enhance the sustainability and effectiveness of resource mobilization strategies, contributing to the holistic implementation of preventive healthcare within the broader framework of UHC.

In Kenya, there are different avenues through which the health sector is financed. These include universal mandatory finance that is done through direct debit on the payroll or revenue taxation (public finance); private voluntary insurance. These methods have a both positive and negative consequence of withdrawing money from households. In relation to the positive consequences, the populace obtains gains from risk pooling increasing the levels at which their welfare is catered for. In this respect the populace expects valuable health services in exchange.

However, some of these funds are also used as administrative costs leading to diminishing of health care provision services. This leads to the concentration on curative healthcare as opposed to Universal Health Coverage. Owing to the finite nature of resources and a wide range of needs, it is not enough to raise money more money. Efficiency to ensure value for money allocated in health is essential. Some suggestions made to ensure efficiency include rational prescribing and reducing counterfeits by a WHO report of 2010. These are areas that require to be monitored. Reduction in service delivery inefficiencies is also important through dialogue and evidence-based decision making. For example, to adopt a new technology there should be health technology assessment putting into account cost effectiveness, affordability, impact on the budget and government sources of funding once external support ends if it was externally funded. Strengthen supply chain management and public finance management in an integrated service delivery model. The model can foster cross program efficiencies and enable identification of areas of inefficiencies or any duplication for correction. Further, there is need to increase public expenditure while reducing the out-of-pocket expenditure and external funding or aid. Out of pocket expenditure has led to impoverishment. Countries using compulsory financing have succeeded in increasing public expenditure such as France, Germany, Thailand, Gabon, Ghana, Rwanda. General budget can be complemented using tax revenues including Value added tax (VAT), mobile phone and transactional taxes as was done in Gabon. Compulsory financing and subsidies are required to ensure UHC succeeds. These methods provide a shield against impoverishment and enable equitable

service coverage and access. Africa has decline in economic growth from 2014. The Low-middle income countries such as Kenya and the lower income countries experienced stable economic growth from 2006 with some contractions in 2003-2006. It is estimated that in low- and middle-income countries, 40% of the health budget is spent on medicines. Most of this cost is paid for out of pocket by patients (World Health Organization, 2019) Due to system inefficiencies, up to one quarter of this expenditure is wasted due to poor procurement, irrational use, substandard or expired medicines. Community based health services are essential in the reduction of morbidity and mortality. They can be instrumental in the eradication of communicable diseases, reduce maternal, infant and child mortality. Like in South East Asia, the Community health services providers should be paid for by the government as full-time field staff as opposed to non professional informally trained health workers or volunteers.

For universal access to health and more so Universal Health Coverage, government presence in finance is essential. Through government presence, budget constraints can be imposed. These provide avenues to get evidence for efficient resource use. By 2002, USA did not have schemes to finance universal health access just as many African Countries. Lack of universal health access leaves many people at risk of financial drain due to medical expenses. On the other hand, shifting of financing of health to the private sector risks having escalating the costs, as in the case of Kenya today. Further, many will lack money to get medical attention when they need it. Adequate capacity building is needed to do these assessments.

4.2 Role of Women in Promoting Preventive Healthcare for UHC in Africa:

In the pursuit of Universal Health Coverage (UHC) in Africa, women emerge as crucial advocates and facilitators for promoting preventive healthcare. Recognizing the unique role women play as caregivers and decision-makers within households. Women are not only instrumental in disseminating information on preventive healthcare but also actively participate in initiatives related to nutrition, sanitation, and maternal and child health. Their influence extends beyond individual households to communities, making them key agents in driving behavioral changes that are central to preventive healthcare. By understanding the challenges and opportunities women face in this role, the research aims to inform policies that empower and amplify their impact, fostering a more inclusive and effective approach to preventive healthcare within the broader framework of UHC in Africa.

Women have a role to ensure that the pharmaceutical sector in UHC is well controlled and properly functioning. In this respect, medicine management is vital. Results from South East Asia show that one quarter of the expenditure on medicines is wasted.

4.3 The State of UHC in Kenya, Focusing on the Inclusion of Preventive Measures:

In Kenya, the state of Universal Health Coverage (UHC) becomes a focal point of analysis, with a specific emphasis on the inclusion and effectiveness of preventive measures. This research has shed light on the successes and challenges encountered in the UHC practices in Kenya, shedding light on the country's progress toward achieving a comprehensive healthcare system. By

focusing on the inclusion of preventive measures, the research unveiled the nuanced aspects of Kenya's UHC landscape. It provided insights into potential improvements that can enhance the synergy between preventive and curative aspects of healthcare delivery in Kenya.

Generally, the findings underscore the importance of preventive healthcare in achieving UHC efficiency. It reveals the challenges in health financing policies, resource allocation, and service delivery efficiency. Women's role in promoting preventive healthcare is crucial, especially in addressing nutritional challenges and ensuring proper sanitation.

5.0 CONCLUSION

There is need to invest in improving supply chain systems and regulatory systems and monitoring of medicine management. Secondly, women are central in actualizing Universal Health Coverage. Further, preventive care is very essential for efficiency in Universal health coverage. The urgency of this need in Africa is seen in due to the limited resources allocated to UHC. Collection of data sex segregated is key to proper management in UHC to understand the position per gender.

On the overall, efforts towards achieving UHC in Africa must prioritize preventive healthcare, and women play a central role in driving this agenda. The study emphasizes the need for efficient resource mobilization, proper health financing policies, and addressing service delivery inefficiencies to attain an equitable and accessible UHC.

6.0 RECOMMENDATION

Advancing preventive health care is recommended to reduce disease prevalence

and ensure the efficiency of the Universal Health Coverage. This will ensure that there is value for any money allocated towards Universal health coverage. Further, increasing efficiency of revenue collection and management, ensuring transparency and accountability of the collected revenue and choosing the right health package for the people that is gender responsive will facilitate maximum benefits from it. Additionally, collection of sex segregated data in UHC is essential for proper and informed management.

The paper recommends advancing preventive healthcare to reduce disease prevalence and ensure UHC efficiency. Additionally, it stresses the importance of collecting sex-segregated data for informed and gender-sensitive management in UHC.

The paper outlines potential future directions for research and policy implementation. It discusses the need for ongoing studies on the role of women in preventive healthcare and advocates for continuous monitoring and adjustment of health financing policies and resource allocation strategies to enhance UHC efficiency.

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The Effects of Temperature Variation on Mango Production in Kibwezi Sub County, Makueni County in Kenya

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Abstract

Mango (*Mangifera indica*) is the second most popular fruit within the tropics after banana. It is grown commercially in more than 90 countries globally and consumed in both processed and fresh forms (Mujuka et al., 2020). However, its productivity is adversely affected by severe climatic conditions caused by climate change. Change in rainfall patterns, extreme weather conditions such as drought and floods have become more frequent. This change in climatic conditions is projected to continue in the future. This research project sought to establish the effects of temperature variation on mango production in Kibwezi sub county, Makueni County in Kenya the objective of the study was to assess the effects of temperature variation on mango production in Kibwezi sub county, Makueni County in Kenya. The study utilized a descriptive research design to investigate the effects of climate change in Mango production in Kibwezi East Sub County -Makueni County. The research utilized the questionnaire as the main

research instrument to collect data from 398 respondents selected through stratified random sampling. Quantitative data was analyzed using descriptive statistics and presented using frequency distribution tables and bar charts while qualitative data was analyzed thematically based on the objectives and research questions and presented in form of narrative. The findings revealed that there exists a strong and positive correlation between temperature variation and mango production ($r = 0.752$, $p = 0.000$). And that a unit increase in temperature variation will lead to a 0.195 increase in mango production. The study recommends that the national government in conjunction with the county government focus more resources and into mitigating climate change effects so as to maximize mango production.

Key Terms: Arid and Semi-Arid Lands; Temperature; Mango; Mango production; Climatic conditions

1.0 BACKGROUND INFORMATION

Mango production is one of the main agricultural activities in Africa, with the continent producing over 50% of the world's mangoes. Mangoes are produced in more than 40 African countries. Mangoes form a staple food for many indigenous people in Africa and are also an important export horticultural fruit crop. Mostly, the mangoes are exported to Europe, North America, among other parts of the globe. The main mango varieties grown in Mali are Kent, Tommy Atkins, Keitt, and Haden. These varieties are common due to their sweet, juicy flavor and large size. Mango fruits are an important source of food for many citizens in Mali. They are consumed fresh, dried, or processed into various products, such as juice, nectar, and jams. Johnson, (2013) contends that mango sector will continue to grow in the coming years. This is because of favorable factors, including the increasing demand for mangoes both locally and internationally, the government's support for the sector, and the availability of skilled work force and resources.

Climatic and weather conditions play a major role in the success or failure of commercial mango production (Subedi et al., 2008). Temperature and rainfall amount influence vegetative and phenological phases in mango growth and development. These are two of the most important climatic factors determining suitability of an area for mango production. Climate-related phenomena have already brought varied changes in flowering and fruiting patterns of mango (Whiley, et al., 1989). Olesen, (2011) opined that this has adversely affected fruit production in some areas. Normad, (2015) noted that rising temperatures in areas that were previously cold for mango production are making them more suitable for mango production. He further notes that, increase in temperatures during cold months has made mango production possible in the valley areas of Himchal Pradesh and Utarkhand.

Unpredictable rains during pre-flowering and flowering periods may lead to poor fruit set and low pollination activities in mango trees. In the changing climatic scenario, a major portion of the harvest may be wiped out by storms during later fruit development stage (Ploez, 2003). Unpredictable changes in rainfall patterns can have a negative effect on the quality and form of ripe mango fruits. Unseasonal rains provide optimum conditions for pests, this lowers fruit yield. Mangoes grow well in climates that have low rainfall distribution and low relative humidity at flowering, fruit setting and harvesting, and that are warm to hot during fruiting (Saucó, 2000). Although mangoes can withstand a wide range of climates from warm temperate to tropical, anthracnose is a serious problem for mango cultivation in humid and high rainfall environments (Cook 1975; Lim and Khoo 1985; Ploez 2003).

1.1 Statement of the problem

Change in rainfall patterns, extreme weather conditions such as drought and floods have become more frequent. This change in climatic conditions is projected to continue in the future. Kenya will experience an increase in temperature by between 1^oC and 5^o C by year 2050 while mean annual rainfall is also going to increase particularly in the short rain season in the high to medium potential areas. (Downing C et al., 2008). Arid and semi-arid areas will likely experience depressed rainfall thereby exacerbating the drought conditions being experienced in those regions. Studies conducted on the impact of climate change on agricultural sector in Kenya have analyzed the impact of climate on general agriculture, (Mati et al., 2002) and (Karanja 2006) attempted to analyze the impact of climate change on maize production. However, results by Mati (2002) were inadequate as they only addressed two ecological zones, yet maize is grown in nearly all seven agro-

ecological zones. The study by Karanja (2006) mainly focused on what? It is important to analyze the impact of climate change at individual crop or animal level so as to enhance a better understanding of how climatic changes continue to affect agricultural production in Kenya. It is in light of this discourse, that this study sought to address and provide some insights on how climate change affects mango production in Makueni County.

Objective

The general objective was to assess the effects of temperature variation on mango production in Kibwezi sub county, Makueni County in Kenya.

2.0 LITERATURE REVIEW

1.1.1. Effects of temperature change on mango production

An increase in temperature changes plant morphology, anatomy and functioning, having advanced effects on seed germination, plant development, flower formation, growth and shedding, pollen viability, gamete fertilization, fruit setting, fruit weight, size and fruit quality (Gora et al., 2019). Most fruit crops are severely affected by hot and cold waves (Malhotra, 2017). In perennial tropical fruit trees such as mango, temperature variation affects flowering. Mango has a vegetative tendency and when temperature rises it bears more number of leaves thus impacting the phenology of flowering. Studies have shown that the hermaphrodite flowers (having both stamen and carpel) percentage in late emerging panicles was higher which also coincided with extreme temperatures (Balogoun et al., 2016; Singh et al., 1966). In bearing or non-bearing trees of mango, scorching of leaves and the dying of twigs are the main symptoms of heat stroke. In mango, the major effects observed during climate change were multiplication of reproductive flushes, early flowering or of delayed flowering, poor

fruit set, reproductive buds transformation into vegetative ones, changes in the fruit maturity etc (Rajan et al., 2011).

In hot & humid situation, the incidence of insect- pests and diseases are more in fruit crops, the attack of Fruit fly is more in such conditions, Papaya Leaf curl virus attack is more prevalent whereas low chilling temperature results to decline in productivity due to extreme temperatures (Hazarika, 2013). In general, higher temperature of 31-32 °C increases the maturity rate thus shortens the period of fruit development (Turner et al., 2007).

1.1.1 Temperature records from the Kenya Meteorological Department over the last fifty years provide clear evidence of climate change in Kenya, with temperatures generally showing increasing trends in many parts of the country starting from the early 1960s. This evidence is also provided in the State of the Environment Reports published by the National Environment Management Authority (2022).

1.1.2 Earth receives energy from the sun as radiations. About half of this is energy absorbed by the Earth's surface while the rest is re-radiated back into the atmosphere as thermal infrared radiation. Atmospheric greenhouse gases (water vapor, carbon dioxide, methane, nitrous oxide and ozone) absorbs the re-radiated energy and partly redirects the energy back to the Earth's surface resulting to elevated temperatures, above what would be in the absence of the greenhouse gases. (IPCC, 2007). The process is natural and vital as the total absence of the greenhouse gases will result to drastic reduction in of temperature on the Earth's surface to -18°C instead of the current 15°C (Karl and Trenberth, 2003).

Temperature is an important factor affecting photosynthesis and therefore increase in temperature would have a positive effect on photosynthesis. However higher temperature of above 45°C would affect the rate of photosynthesis negatively. This is because it will promote damage to the photosynthesis

and respiration machinery. Extremely low temperature also is counterproductive as it also lowers the rate of photosynthesis. The floral induction of mango tree is mainly driven by cool temperatures. Consequently, increase in temperature would have negative effect on floral induction thus affecting mango production. Whiley et.al (1991) reported that for vegetative induction day temperature of 30°C and night temperature of 25°C is required. For floral induction at 15°C day and 10°C night temperatures are critical in mono and polyembryonic cultivars. The most suitable temperature for the growth of mango is 22°C to 27°C. Therefore, temperature variations affect mango tree growth eventually affecting mango production.

3.0 RESEARCH METHODOLOGY

The research design used was descriptive research design. The target population was farmers growing mango in Kibwezi east

1.1.2. Effects of Temperature Variation on Mango Production

1.1.2.1 Table 4.9. Respondents' Perception Effects of Temperature Variation on Mango Production		
Construct	Mean	Std. Deviation
I have noted increase/ decrease in temperature in the recent past.	4.25	0.770
The temperature variations have impacted positively/negatively on my mango trees	4.16	0.818
The temperature variations are a great concern to my mango farming	3.98	0.910
I belief human activities are the main cause for temperature variations	4.42	0.629
I belief temperature variations will continue in the near future.	4.51	0.448

The statement that sought to assess on whether respondents have noted increase/ decrease in temperature in the recent past recorded a high mean of 4.25. This is an indication that most of the respondents agreed to this statement. On the other hand,

Makueni County, Kenya. 398 mango farmers were selected through stratified random sampling. Questionnaires were used to collect data. Quantitative data was analyzed using descriptive statistics and presented using frequency distribution tables and bar charts while qualitative data was analyzed thematically based on the objectives and research questions and presented in form of narrative.

DATA PRESENTATION AND INTERPRETATION

Response rate

200 copies of the questionnaire were wholly filled and returned. This translates to a 50.25% response rate. This response rate was deemed adequate for the study, as Wu et al. (2022) contends that superior statistical research requires a return rate of 50% and above.

the statement recorded a moderate standard deviation of 0.770, implying that there was a moderate /disparity in the respondents' responses.

A high mean of 4.16 was recorded when respondents were asked whether the

temperature variations have impacted positively/ negatively on my mango trees. This implies that most respondents strongly agree with the statement. A high standard deviation of .818 was recorded for the same statement, an indication that the respondents' responses varied to a large extent.

Most respondents agreed to the statement that sought to know whether the temperature variations are a great concern to my mango farming as indicated by the large mean of 3.98. On the other hand, a moderate standard deviation of 0.910 was recorded on the same statement, an indication that the respondents' responses varied to a high extent.

The statement on whether the respondents believe human activities are the main cause for temperature variations recorded a high

mean of 4.42, implying that most of the respondents agreed with the statement. A moderate standard deviation of 0.629 was recorded on the same statement, implying that there was a moderate disparity in the responses given by the respondents.

The statement on whether the respondent's belief temperature variations will continue in the near future recorded a very high mean of 4.51, implying that most of the respondents strongly agreed with the statement. A low standard deviation of 0.448 was recorded on the same statement, implying that there was a low disparity in the responses given by the respondents.

1.1.3. Temperature Variation

1.1.3.1.1 Table 4.13 Correlation Analysis Results for Temperature Variation

		Mango Production	Temperature Variation
Mango Production	Persian Correlation Sig. (2-tailed)	1.00	
Temperature Variation	Persian Correlation Sig. (2-tailed)	.752**	1.00
		0.00	

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

Table 4.13 above presents the correlation analysis results between temperature variation and mango production. From the table, it is revealed that there exists a strong and positive correlation between temperature variation and mango production ($r = 0.752$, $p = 0.000$). This means that both temperature variation and mango production change in the same direction. Further, the correlation coefficient of 0.752 reveals a strong association between temperature variation and mango production in the study area.

According to the regression model established, taking all factors (temperature variation, rainfall, pests & diseases, phenological aspects) constant at zero, mango production will be 0.530. The data findings analyzed also shows that holding all other variables at zero, a unit increase in

temperature variation will lead to a 0.195 increase in mango production.

5.0 CONCLUSION

The study findings clearly indicate that there is a positive correlation between temperature variation affects mango production. More particularly the study findings indicate that: Farmers have noted increase/ decrease in temperature in the recent past ($M = 4.25$, $SD = 0.770$); the temperature variations have impacted positively/ negatively on the respondents' mango trees ($M = 4.16$, $SD = 0.818$); the temperature variations are a great concern to my mango farming ($M = 3.98$, $SD = 0.910$); farmers belief human activities are the main cause for temperature variations ($M = 4.42$, $SD = 0.629$); respondents belief

temperature variations will continue in the near future. (M= 4.51, SD= 0.448).

6.0 RECOMMENDATION

From the study findings, it is justified to conclude that climate change adversely affects mango production in Kibwezi East sub county Makueni County-Kenya. The study therefore recommends that the national government of Kenya, in conjunction with County Governments should Channel more resources and attention into mitigating climate change so as to maximize on mango production.

6.1 Suggestion of Areas for Further Studies

With the guide of a descriptive research design, this study generally sought determine the effects of climate change on mango production in Kibwezi East sub county Makueni County-Kenya. Specifically, the research was guided by the following research objectives: to evaluate the effects of temperature variation on mango production in Kibwezi sub county, Makueni County in Kenya; to measure the effects of rainfall patterns on mango production in Kibwezi sub county in Makueni County, Kenya; to determine the impact of phenological aspects on mango production in Kibwezi sub county in Makueni County, Kenya; to examine the effects of pests and disease prevalence on mango production in Kibwezi sub-county, Makueni county, Kenya. Based on this context, the study suggests the following as areas for further studies:

- 1) A similar study should be carried out using different study area, say Kitui County, as a case study, in order to allow comparison and generalization of results.
- 2) A similar study should be carried out using more independent variables apart from the ones used in this study,

so as to allow us to tap into a deeper comprehension of the research topic.

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Effect of Hydraulic Ram Pump use in reducing hunger in Yatta Sub County in Machakos County

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ABSTRACT

More than two-thirds of the world's population produces about one-third of the world's food, and these people are suffering from a severe food crisis. This imbalance has severe economic and social repercussions and gravely jeopardizes the fundamental principles and values of the right to life and nutrition. This study assessed how hydraulic ram pumps in the Yatta Sub County of Machakos, Kenya, contributed to reduction of hunger cases. The researcher employed a descriptive survey on a sample of 43 farmers that was randomly selected and determined using Slovin's formula. Data was collected using questionnaires and analyzed in SPSS version 29. The independent variables' Cronbach's alpha values were = 0.712 for reduction of hunger. There was a significant positive relationship ($r = 0.891$, $p = 0.028 < 0.05$) between the reduction of hunger and

improved living standards. Minimization of poverty correlated positively and significantly ($r = 0.999$, $p = 0.015 < 0.05$) with improved living standards. The results showed a positive and significant correlation between the alleviation of water scarcity and improved living standards ($r = 0.834$, $p = 0.001 < 0.05$). It was recommended that national and county governments increase awareness of the benefits of using hydraulic ram pumps in arid and semi-arid areas while remaining determined to finance projects in ASAL that are tailored to improve the livelihoods of people in those areas. The study recommended increasing the number of hydraulic ram pumps in the location from 48 to having at least one hydraulic ram pump every two homesteads.

Key Terms:

Poverty: Water Scarcity: Living Standards:
Hydraulic Rams:

1.0 BACKGROUND INFORMATION

The most fundamental human health and well-being needs are access to clean water, sanitation, and hygiene. If development doesn't triple, billions will lack access to these essential services by 2030. Rapid population expansion, urbanization, and increased water requirements from the agricultural, industrial, and energy sectors all contribute to increased demand for water.

Water stress has worsened by years of abuse, lousy management, excessive groundwater exploitation, and tainted freshwater supplies. As a result of climate change, deteriorating water-related ecosystems, underinvestment in water and sanitation, and inadequate collaboration on transboundary waterways, countries are also confronting an increasing number of difficulties. The advancement rates would need to quadruple by 2030 to provide universal access to drinking water, sanitation, and hygiene. Achieving these goals would save the 829,000 yearly deaths from diseases directly linked to contaminated water, inadequate sanitation, and poor hygiene habits.

Increased sectoral investment and capacity building, promoting innovation and evidence-based action, improved cross-sectoral coordination and cooperation among all stakeholders, and adopting a more integrated and holistic approach to water management are key strategies to get Goal 6 back on track. Increased sectoral investment and capacity building, promoting innovation and evidence-based action, improved cross-sectoral coordination and cooperation among all stakeholders, and adopting a more integrated and holistic approach to water management are key strategies to get Goal 6 back on track.

Protect and restore water-related ecosystems by 2020, including wetlands, rivers, lakes, mountains, forests, and aquifers. By 2030,

increase international collaboration and capacity-building assistance for projects and activities connected to water and sanitation, including technology for water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse. Encourage and boost community involvement in bettering water and sanitation management locally. Sanitation, cleanliness, and access to clean water are essential for human health and welfare. Safe water is important for livelihoods, school attendance, and dignity and is a requirement for good health. It also helps build strong communities with wholesome surroundings. Untreated excrement contaminates groundwater and surface waterways used for drinking water, irrigation, bathing, and domestic functions, leading to diarrhea and harm to health. Whether from artificial sources like nitrate or natural sources like arsenic and fluoride, chemical contamination of water continues to harm human health (Khanam, 2021). Numerous cases can be prevented with safe and adequate WASH, including trachoma, helminths spread through the soil, and schistosomiasis. During the Millennium Development Goal (MDG) period (1990–2015), diarrheal deaths due to insufficient water were cut in half, with significant advancements in water and sanitation services playing a crucial role. Increasing service levels for safely managed drinking water or sanitation, such as regulated piped water or connections to sewers with wastewater treatment, may significantly enhance health by lowering the number of fatalities from diarrheal disease, according to the evidence.

Many scientists define drylands as ecosystems comprising grasslands, woodlands, and rangelands, which comprise more than 40% of the planet's surface (IUCN, 2019). 41% of the Earth's surface is made up of drylands, of which 45% is used for agriculture, according to Burrell et al. (2020).

Worldwide, 2 billion people live in drylands, which can be found on all continents (IUCN, 2019; FAO, 2016).

1.1 Statement of the problem

Hydraulic ram is one of the oldest mechanical devices for water lifting. Technological progress also improved the RAM, but electric and fuel-powered pumps superseded it. Today, the ram constitutes a reliable, low-maintenance, sustainable alternative to motor-driven pumps. Since introducing hydraulic ram pumps in Kenya, there has not been evidence on whether the pumps have significantly contributed to curbing hunger cases among people living in ASALs. In addition, there is no record of any study conducted in Yatta Sub County in Machakos concerning the effects of hydraulic ram pump use to human living standards. Since building up communities has become one of Kenya's primary methods of alleviating poverty, partaking in construction and building infrastructure has become one of the most booming businesses in the country, generally helping the economy and allowing newer and safer ASALs to arise all around the country. In this view, the current study sought to investigate how hydraulic ram pumps have contributed to curbing hunger issues in Yatta Sub County in Machakos County, Kenya.

1.2 Objective of the study

The main objective of this study was to investigate the effect of Hydraulic Ram Pump use in reducing hunger in Yatta Sub County in Machakos County.

1.3 Hypotheses

H₀: Hydraulic Ram Pump use does not have significant effect on reduction hunger in Yatta Sub County in Machakos County.

H₁: Hydraulic Ram Pump use has significant effect on reduction hunger in Yatta Sub County in Machakos County.

2.0 LITERATURE REVIEW

2.1 Reduction of Hunger

More than two-thirds of the world's population produces about one-third of the world's food, and these people are suffering from a severe food crisis (Gundogdu, 2019). This imbalance, which threatens to worsen over the next ten years, has severe economic and social repercussions and gravely jeopardizes the fundamental principles and values of the right to life and nutrition. Eliminating hunger and malnutrition, one of the goals outlined in the UN Declaration on Social Progress and Development, and eradicating the factors contributing to this condition are shared goals among all countries (Singleton et al. 2021). The historical circumstances of the people who suffer from hunger and malnutrition, particularly social inequalities, which continue to be among the most significant barriers to the complete emancipation and advancement of the developing countries and all of the peoples involved, include alien and colonial domination, foreign occupation, racial discrimination, apartheid, and neo-colonialism in all its forms (Singleton et al. 2021).

This situation has gotten worse recently as a result of many crises that the global economy has experienced, including the decline of the international monetary system, inflationary increases in import costs, heavy burdens of external debt on the balance of payments of many developing countries, an increase in food demand partly due to population pressure, speculation, a shortage of and increased prices for essential agricultural inputs, and a rise in food prices; The Charter of Economic Rights and Duties of States should be taken into consideration in the context of ongoing negotiations, and the General Assembly of the United Nations should be urged to unanimously adopt a Charter that will serve as a valuable tool for

the development of new international economic relations based on justice and equity principles (Niyobuhungiro, 2019).

A comprehensive informational strategy that adequately accounts for the various interdependences is required for the economic study of hunger. The interdependences between income and food consumption, the operations of different economic sectors, production and trade in multiple countries, macroeconomic stability and food security, intra-family distributional rules and the sharing of food and health care, women's power and fertility behavior, military expenditure and economic deprivation, early undernourishment and its effects on health and skills, political instability, and macroeconomic stability are all examined by Amartya (2018). These linkages' implications are briefly discussed by Amartya (2018).

Extreme weather and drought have a negative impact on rural populations' ability to sustain their way of life (Maione, 2020). They contribute significantly to the food shortage in Northern Kenya (Maione, 2020). Because of their high susceptibility within the population, children and the elderly are particularly affected by hunger- and malnutrition-related diseases because of their inability to adjust to varied and changing local climate conditions and low levels of resilience (Maione, 2020). The Kenyan government developed the Hunger Safety Net Programme (HSNP), which is currently in its third phase of operation in 2009 in response to these circumstances (Maione, 2020). One of the main elements of Kenya Vision 2030, the country's development plan, is the HSNP (Maione, 2020). Its primary goals are to ensure food security for everyone and to advance financial inclusion through cash transfers (Maione, 2020). International agencies provide the majority of the funding for these initiatives (Maione, 2020).

Expanding access to cash transfers helps disadvantaged households who have lost access to agricultural and natural resources as a result of harsh weather events as well as shifting socioeconomic pressures (Maione, 2020). In this situation, those who depend on natural resources cannot secure their present and future welfare (Maione, 2020). The HSNP has supported 69,000 households while covering 31% of the population in the poorest areas since its implementation started in 2009 (Maione, 2020). Its growth through increased financial resources will allow more highly susceptible households to increase their resilience, better manage climate threats, and secure their future well-being (Maione, 2020). Future domestic and foreign investment efforts should concentrate on insurance programs, technical support, regulations reducing disaster risk, protection of natural capital, and compensation programs (Maione, 2020).

The goal of Song and Imai (2019) was to assess Kenya's Hunger Safety Net Programme's (HSNP) immediate effects and long-term viability. The impact of program participation on the household Multidimensional Poverty Index (MPI) is estimated using difference-in-difference and propensity score matching methods (Song and Imai, 2019). Song and Imai (2019) discovered that program participation considerably decreased the MPI, which is primarily driven by the food insecurity component, and that the decrease in poverty is attributable to the reduction in the incidence and severity of poverty, particularly the latter, among the ultra-poor households (Song and Imai, 2019). Weaknesses in the program's implementation and financing, as well as the short-term focus of impact evaluation, may undermine the program's ability to contribute to the development of a powerful state that is responsible for the eradication of poverty, even though the government of Kenya is

making strides in the institutionalization of social protection, according to our analysis of

the country's political economy (Song and Imai, 2019).

3.0 RESEARCH METHODOLOGY

This research project employed a descriptive survey method to collect data from a sample of the targeted population. The descriptive survey was an appropriate choice since the researcher aimed to identify socioeconomic characteristics, frequencies, trends, and categories. The research targeted farmers and owners of hydraulic ram pumps in Yatta Sub County in Machakos County. According to Ministry of Agriculture data in Yatta Sub County, there were 156 registered farmers in the Sub County out of which 48 farmers owned hydraulic ram pumps. Primary data was collected using the questionnaire. Content validity and a pre-test survey were conducted to test the instrument's validity. The reliability of the pilot's study data was tested using the Cronbach alpha coefficient. An alpha coefficient of 0.70 or higher was considered acceptable (Cooper & Schindler,

2009). Therefore, the researcher strove for reliability values of 0.70 or higher.

4.0 DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Demographics

Occupation of the Population

The table below demonstrates that 88.4% of the population in the study area were farmers. Less than 12% of the population had other occupations than farming. Therefore, the study concluded that farming was the primary economic activity of the population in the study area.

Table 1: Occupation of the Population

	N	%
Yes	38	88.4%
No	5	11.6%

4.3.5 Use of Hydraulic Ram Pump

The study established that all (100%) of the respondents had used hydraulic ram pumps at some point in their lives (Table 3).

Table 2: Use of Hydraulic Ram Pump

	N	%
Yes	43	100.0%

4.3.6 Ownership of Hydraulic Ram Pump

The study further established that 60.5% of the population owned the hydraulic ram pumps they used, while 39.5% of the population leased the hydraulic ram pump (Table 4).

Table 3: Ownership of Hydraulic Ram Pump

	N	%
Own	26	60.5%
Lease	17	39.5%

4.3.7 Years of Use of Hydraulic Ram Pump

The researcher wanted to know how long the respondents had used the hydraulic ram pumps. The respondents were asked to show the years they had been using the hydraulic ram pumps. The statistics in Table 5 below

showed that 20.9% of the respondents indicated that they had used the ram pumps for 1-2 years, 11.6% for 3-4 years, 18.6% for 5 years, and 48.8% for over 5 years.

Table 4: Years of Use of Hydraulic Ram Pump

	N	%
1-2	9	20.9%
3-4	5	11.6%
5	8	18.6%
Above 5	21	48.8%

4.2 Contribution of Hydraulic Ram Pumps to the Reduction of Hunger

4.4.1 Hunger Reduction before acquiring Hydraulic Ram Pumps

The respondents were asked to state how they managed hunger before they obtained hydraulic ram pumps. The results are illustrated by the statistics in Figure 4 below.

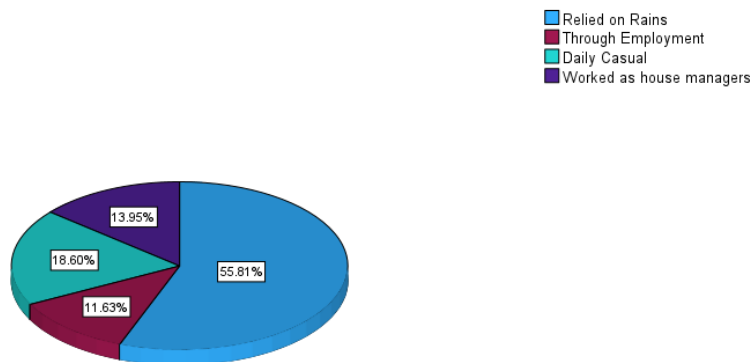


Figure 1: Ways of Managing Hunger before acquiring Hydraulic Ram Pump

The results demonstrated that most (55.81%) of the farmers relied on sporadic rains to grow food crops that helped them manage or reduce hunger in their households. 11.63% were employed to earn income that enabled them to buy food to reduce hunger. A proportion of 18.60% lived –hand-to-mouth by working as daily casuals to be able to feed their families, while 13.95% reduced hunger by working as house managers, a job that enabled them to earn income to buy food.

4.4.2 Contributions of Hydraulic Ram Pumps
The researcher provided the respondents with five five-point Likert questions for the respondents to show the degree to which they agreed with given statements. On the scale, the respondents were required to choose one

value between 1 and 5, where 1 represented strongly disagree while 5 strongly agreed. The first question asked the respondents to show the extent to which they agreed with the statement, “I use a hydraulic ram pump to pump water to irrigate food crops.” The data collected was analyzed, and the results are illustrated in Table 6 below. All the farmers stated that they used hydraulic ram pumps to pump water that was used for irrigation. According to the statistics, 83.7% agreed with the statement, while 16.3% strongly agreed with the statement. Therefore, it was established that hydraulic ram pumps have contributed to hunger reduction by enabling farmers to pump water for irrigating food crops in the study area.

Table 5: HRP to Pump Irrigation Water

	N	%
3	17	39.5%
4	19	44.2%
5	7	16.3%

The second question required the respondents to show the degree to which they agreed that HRP was a sustainable and low-cost alternative for crop production. As demonstrated in Table 6, all the respondents agreed that hydraulic ram pumps provided a sustainable and cost-effective alternative for crop production. Following the statistics,

55.8% agreed, and 44.2% strongly agreed that hydraulic ram pumps provided them with a sustainable and cost-effective alternative for the production of food crops. Therefore, the study found HRPs sustainable and cost-effective alternatives for the production of food crops.

Table 6: HRP is a sustainable and Cost-effective alternative for Crop Production

	N	%
4	24	55.8%
5	19	44.2%

Thirdly, the respondents were asked to indicate their degree of agreement with the statement that “HRP is cheap, simple to use,

and environmentally friendly.” The results are shown in Figure 7.

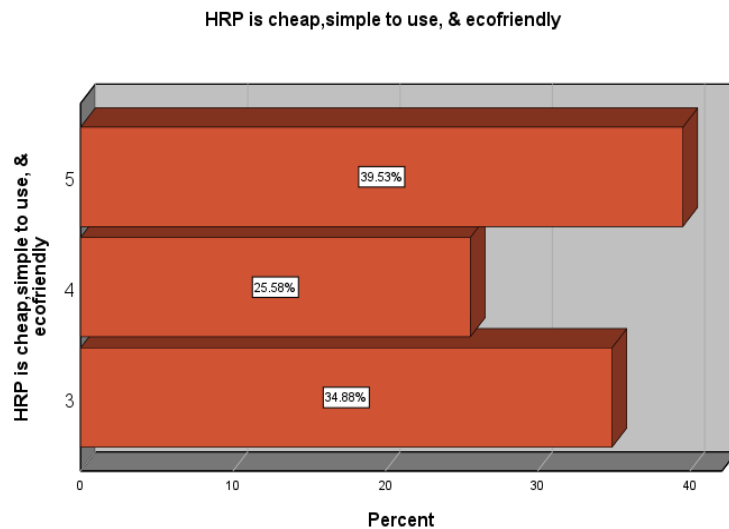


Figure 2: HRP is cheap, simple, and environmentally friendly

All of the farmers agreed, with 39.54% strongly agreeing, that hydraulic ram pump was cheap to acquire, simple to use, and ecofriendly. The study, therefore, concluded that hydraulic ram pumps were cheap to acquire, simple to use, and environmentally friendly. Likert questions, with 1 denoting strongly disagree and 5 strongly agree, were used to get the findings shown above.

by the farmers. According to the statistics, 44.2% of the population argued that the maintenance cost for the pump was comparatively low, while most of them (55.8%) stated that they found the maintenance cost for the hydraulic ram pump low (see Table 8). The answers to the Likert questions that produced the findings above were 1 for strongly disagree and 5 for strongly agree.

4.4.3 HRP Maintenance Cost

The study found that the maintenance cost for hydraulic ram pumps to be low, as indicated

Table 7: HRP Maintenance Cost

	N	%
3	19	44.2%
4	24	55.8%

4.4.4 Reliability of Hydraulic Ram Pump

Hydraulic ram pump as a means of pumping water for irrigation was found to be a reliable means for crop production. All the farmers

stated that their hydraulic ram pumps were reliable for crop production. The statistics showed that 62.79% and 37.21% agreed and

strongly agreed that hydraulic ram pump was reliable for crop production. The results above were obtained from Likert questions in

which 1 represented strongly disagree and 5 strongly agree.

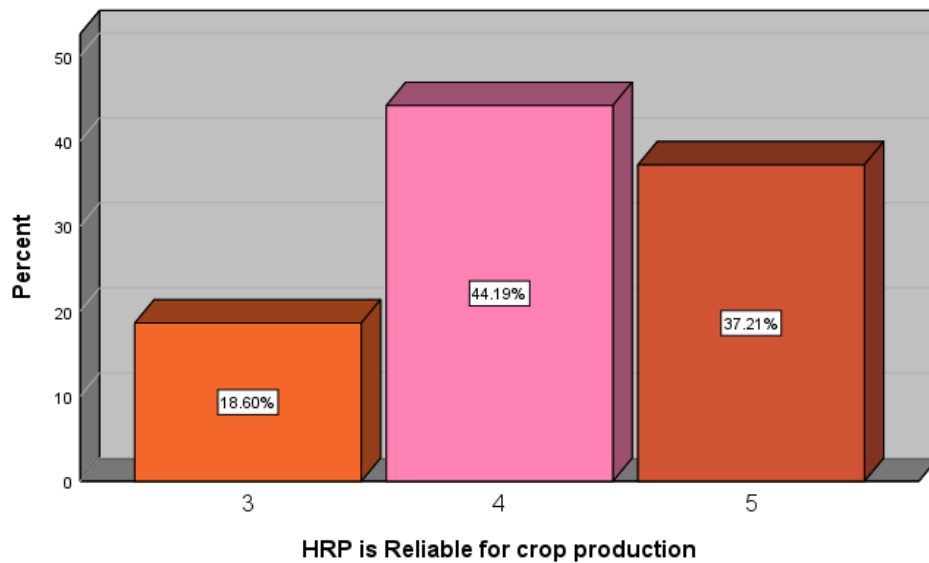


Figure 3: Reliability of Hydraulic Ram Pump

The research went further to examine how the hydraulic ram pumps helped the farmers to reduce hunger. The respondents were asked to answer the question, “After acquiring/leasing hydraulic ram pumps, how

has it helped you to manage or reduce hunger?” The results are shown in Figure 7 below. Likert questions, with 1 denoting strongly disagree and 5 strongly agree, were used to get the findings shown above.

- Irrigate food crops
- Plant kitchen garden
- Grow vegetables
- Grow fruits
- Rear livestock

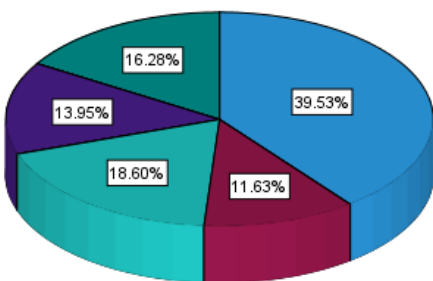


Figure 4: How has a hydraulic ram pump helped you to manage or reduce hunger?

The results illustrate that hydraulic ram pump has helped 39.53% of farmers to irrigate food

crops, 11.63% to plant kitchen gardens, 18.60% to grow vegetables, 13.95% to grow fruits, and 16.28% to rear livestock. All these measures were taken to help the farmers deal with hunger.

5.0 SUMMARY

As a reliable, low-maintenance, and environmentally friendly substitute for motor-driven pumps, rams are still used today. There is no proof that the hydraulic ram pumps have considerably raised the living standards of those who reside in ASALs since their introduction in Kenya. Furthermore, no research on the benefits of hydraulic ram pumps for raising living conditions has been done in the Yatta Sub County of Machakos, according to the records. Construction and infrastructure development have grown to be two of Kenya's most lucrative industries, helping to boost the economy and enable the emergence of newer and safer ASALs across the nation. This is because improving communities has become one of Kenya's main strategies for reducing poverty. Accordingly, the current study chose Yatta Sub County in Machakos County, Kenya, as the study region in order to examine how hydraulic ram pumps have improved people's living standards in ASALs.

All of the responders, as shown in Table 2, concurred that hydraulic ram pumps offered a viable and affordable alternative for crop production. In accordance with the statistics, 55.8% of respondents agreed, and 44.2% strongly agreed, that the cultivation of food crops using a hydraulic ram pump offered them a viable and affordable alternative. The study discovered HRPs as a viable and affordable solution for growing food crops. Thirdly, the respondents were prompted to rate how much they agreed with the claim that HPP is affordable, user-friendly, and environmentally beneficial. The outcomes are displayed in Figure 4. All of the farmers believed that hydraulic ram pumps were inexpensive to buy, easy to use, and environmentally beneficial, with 39.54% strongly agreeing. Accordingly, the study

concluded that hydraulic ram pumps were inexpensive to buy, easy to use, and environmentally beneficial. According to the farmers, the study discovered that hydraulic ram pumps require little maintenance. The majority of people (55.8%) said they thought the maintenance cost for the hydraulic ram pump was low, whereas 44.2% of the public claimed that the maintenance cost for the pump was relatively cheap (see Table 5). The findings show that hydraulic ram pumps have aided 39.53% of farmers in the irrigation of food crops, 11.63% in the planting of kitchen gardens, 18.60% in the growth of vegetables and fruits, and 16.28% in the care of cattle. All of these steps were taken to assist the farmers in overcoming hunger. The respondents were questioned about their degree of poverty prior to purchasing the hydraulic ram pumps as part of a study looking at how much they reduced poverty. It was determined that the majority of respondents, who made up 55.8% of the population, were experiencing extreme poverty.

6.0 CONCLUSION

Based on the findings of this study, it was concluded that the application of hydraulic ram pumps by farmers had a strong positive and significant contribution to improving the living standards of people through the reduction of hunger. Farmers used hydraulic ram pumps to grow food crops, which increased their ability to reduce hunger. Their nutrition was found to have significantly improved when the farmers irrigated food crops on their farms.

7.0 RECOMMENDATION

Following the conclusions made in this study, it was recommended that national and county governments increase awareness of the benefits of using hydraulic ram pumps in ASAL (s) while remaining determined to finance projects in ASAL that are tailored to

improve the livelihoods of people in those areas. The study recommended increasing the number of hydraulic ram pumps in the area from 48 to having at least one hydraulic ram pump every two homesteads.

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