

**ROLE OF MEDIA IN DISSEMINATING LUYIA INDIGENOUS KNOWLEDGE
FOR SOCIO-ECONOMIC DEVELOPMENT: THE CASE OF WEST FM
RADIO, WESTERN KENYA**

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DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any university/institution for consideration. This thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, they are specifically accredited and references cited in accordance with anti-plagiarism regulations.

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DEDICATION

I dedicate this work to God The Almighty for His ever present care and support, my family: Everlyn my wife, sons Ian, Wayne, Owen, and daughter Wendy and to my late Kukhu Dorcas Mukoya and Kuuka Joseph Namaande Wekalao for their love of knowledge and financial cum moral support that has seen me not only scale up the academic and intellectual horizons but also positively confront the challenges of life.

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ABBREVIATIONS AND ACRONYMS

CAK	Communication Authority of Kenya
CAS	Current Awareness Services
CCK	Communication Commission of Kenya
CITES	Convention on International Trade in Endangered Species
CBD	Convention on Biological Diversity
CBO	Community Based organization
DJ	Disc Jockey
DSTV	Digital Satellite Television
ECD	Early Child Development
HIV/AIDS	Human Immuno- Deficiency Virus
ICT	Information Communication Technology
IK	Indigenous Knowledge
IKWW	Indigenous Knowledge World Wide
IUCN	International Union for Conservation of Nature
KBC	Kenya Broadcasting Corporation
KM	Knowledge Management
KTN	Kenya Television Network
IKMS	Indigenous Knowledge Management Systems
MOST	Management of Social Transformation Programme
NEMA	National Environmental Management Association
NGO	Non-governmental Organization
NTV	Nation Television
NUFFIC	Netherlands Organization for International Corporation in Higher Education
PELUM	Participatory Ecological Land Use Management
PRCA	Participatory Rural Communication Appraisal
PRSP	Poverty Reduction Strategy Paper
RMS	Royal Media Services
SADC	Southern Africa Development Community

SECI	Socialization Externalization Combination and Internalization
TV	Television
UPOV	Union for the Protection of Plant Varieties
UN	United Nations
UNESCO	United Nations Environmental, Social and Cultural Organization
WHO	World Health Organization
WIPO	World Intellectual Property Organization

ABSTRACT

The study focused on the role of media in disseminating Indigenous Knowledge (IK) for socio-economic development. The media station narrowed on is the West FM Radio in Bungoma whose broadcast covers Western Kenya and some parts of the North Rift. The purpose of the study was to assess the role of media in disseminating Indigenous Knowledge and where possible develop a pragmatic framework for the process. The study objectives comprised determining listenership levels of West FM indigenous knowledge programmes, evaluating indigenous knowledge domains and practices in Western Kenya and assessing the programmes and tools used by West FM radio for disseminating indigenous knowledge, among others. The study is important to IK policy makers both at the national and West FM levels because it gives theoretical information relevant to policy formulation and incorporation into national policy instruments. The media especially FM radios have become an alternative means through which indigenous knowledge is disseminated. The study systematically described the different facets of IK in the Western and North Rift topographies of West FM listenership. Purposive sampling was used in identifying staff to be interviewed from the West FM Radio. Stratified sampling was used to categorize the strata of respondents (the staff, IK custodians and audience) of West FM. Since the target population was not homogeneous, systematic random sampling was applied in the study to determine the respondents from the listenership stratum. Multiple data collection comprising both primary and secondary data collection methods such as documentary review, face to face interview, telephone interview, observations and content analysis were applied. A pilot study on respondents from Nyota FM (based in Bungoma town) was undertaken to give baseline information for improvement on different aspects of methodology. Research instruments were pre-tested in the pilot centre to determine validity. Cronbach's alpha reliability estimate was used to measure the internal consistency of data collected. Finally, thematic and explanatory data analysis approach was used to analyze qualitative data. SPSS was applied for quantitative data analysis. Among the findings of the study are that IK programmes have had a positive impact on the listenership in terms of agriculture, morality and family stability. However, though well intentioned, the programmes were yet to be evaluated on their appropriateness in terms of content transmitted, language used and other aspects pertinent to dissemination of IK. The study recommends the need for a national policy on IK and that the station's IK policy be scaled up to factor other communities in its coverage area in terms of content and language used for dissemination. It also recommends gender parity in IK programmes and further research on harvesting and acquisition and documentation of IK.

CHAPTER ONE

INTRODUCTION AND CONTEXT TO THE STUDY

1.1 Introduction

This chapter gives background to the study, statement of the problem, objectives of the study, research questions, significance, limitations and delimitation, assumptions, theoretical and conceptual framework of the study.

1.2 Background to the Study

Knowledge has become the 21st century leading resource for development at all levels, heralding transition from the information society to the knowledge society paradigm. According to Ahmad (2010), Knowledge refers to facts, skills and understandings that one gains especially through learning or experience that enhances one's ability of evaluating context, making decisions and taking action. On the other hand, Rajeskar (1992) explains that Indigenous Knowledge is a systematic body of knowledge acquired by the local people through the accumulation of experience, informal experiments, and intimate understanding of the environment in a given culture. Dissemination of such knowledge is now at the forefront of the international development agenda.

At the first Global Knowledge Conference in Toronto in 1997, participants called on the World Bank (WB) to make available the knowledge it had gained through decades of experience and to learn from communities so as to leverage the best in the global and local knowledge systems (World Bank, 1997). Out of this initiative, the WB launched the Indigenous Knowledge for Development Programme in 1998 to

help learn from community based knowledge systems and incorporate the same in development initiatives. The programme acknowledged that knowledge is not an exclusive domain of technologically advanced nations. It should be used as a tool to give new meaning to empowering poor people and help to give them voice; not as recipients of knowledge but as contributors to their own development.

The global arena has witnessed the emergence of indigenous knowledge resource centres, comprising academic institutions, nongovernmental organizations (NGOs) and community based organizations (CBOs) such as the Centre for Indigenous Knowledge for Agriculture and Rural Development (CIKARD) in Iowa, USA, the Centre for International and Advisory Networks (CIRAN) in the Netherlands that focuses on understanding, recording, preserving and using the Indigenous Knowledge of farmers and rural people around the globe and or making this knowledge available to development professionals and scientists (Warren, 1990). The network now consists of four global centers, two regional centres and eighteen national centres in developing countries. It has a newsletter called *indigenous knowledge and Development Monitor*, organizes international conferences and publishes regional and national databases of indigenous knowledge research. The databases are intended to contribute to sustainable development and to education, while enhancing the status of traditional knowledge.

Warren (1990) advocates for inclusion of traditional or indigenous knowledge alongside scientific knowledge, as part of national and international discussions and the strengthening of intellectual capacity.

The prevailing view of the network is that there should be a free flow of knowledge that will be of benefit to developing countries and local communities. However, there is no stated policy regarding intellectual property rights (IPR) or traditional resource rights (TRR). Although indigenous peoples may indeed benefit from increased respect for their knowledge and from access to new knowledge, their own intellectual contributions to the databases can be freely exploited for commercial purposes by companies with no obligation to compensate communities. Out of these global initiatives have emerged regional networks such as the Participatory Ecological Land Use Management (PELUM), which brings together small scale farmers from East and Southern Africa to share knowledge and skills in indigenous agriculture. In 1998, UNESCO's Management of Social Transformations Programme (MOST) and the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) initiated cooperation in the field of Indigenous Knowledge (IK). Out of this cooperation developed a database of best practices illustrating the good use of IK in the development of cost-effective and sustainable strategies for poverty alleviation and income generation in Africa, Asia, Europe and Latin America.

Further, the introduction of IK programmes by the WB bolstered the work of the World Conservation Union (IUCN) which supports the preservation, revitalization, and application of IK to biodiversity conservation and sustainable use within the framework of equity.

Another notable global effort to recognize IK is the UNESCO's Management of Social Transformations Programme (MOST) which started in 1994. This was the first intergovernmental social science research and policy programme to be created in a UN Specialized Agency, which maintains a best practice database in indigenous Knowledge.

Currently there is a global move towards integrating IK into development plans, particularly those to do with poverty reduction. At the top of these initiatives, the World Bank is spearheading a number of initiatives towards integrating IK in development plans globally, but with emphasis on Africa.

The indigenous knowledge situation in Africa gives a clear insight on how indigenous knowledge can be applied to enrich the development process. Africa has a rich heritage of indigenous knowledge resources, utilized in areas which include traditional judicial systems to reduce or prevent conflict; use of traditional healers to increase the effectiveness of HIV/AIDS projects; use of traditional knowledge to help reduce maternal mortality; development of medicinal plants for diseases management; water harvesting and soil conservation technology among others.

It is important to note that dissemination of indigenous Knowledge in the African setting was predominantly dependent on folk media. That is, traditional modes of communication such as songs, dance, poetry, storytelling, ceremonies, festivals, work related activities, rites of passage among other methods. However, there is an increase in the use of radio to leverage the dissemination of Indigenous Knowledge.

Radios are extensively used as a communication medium in Africa to support educational programmes in teaching, health, literacy training, nutrition, education and promotion of changes in farming practices to improve agricultural production.

In appreciating the value of Indigenous Knowledge, Ethiopia, Malawi, Burkina Faso, Tanzania and Uganda have incorporated indigenous knowledge elements in their countries' national strategies especially those concerned with poverty reduction (World Bank, 2004). For example, in Uganda, Poverty Eradication Action Programme has incorporated IK as a component of science and technology. There are regional organizations that are also incorporating IK in their strategies. An example is the South African Development Community (SADC) which has included IK as a component under Science and Technology in its Regional Indicative Strategic Development Plan.

In Kenya these initiatives fall under the following projects: Early Childhood Development (ECD) Project; Learning exchange on IK practices in ECD with India and Sri Lank and use of ICTs; National Agricultural Research Project: IK agricultural practices for outreach, verification and dissemination; and Poverty Reduction Strategy (PRS) and Identification of potential role of local level institutions to increase transparency and participation.

It is important to note that despite the value inherent in indigenous Knowledge, only a few countries of the developing world more especially Africa South of the Sahara have elaborate policy and legal framework to underpin Indigenous Knowledge.

Kenya is yet to come up with a policy that deals directly with IK. Even so, there are a number of policy instruments that touch on IK. According to Njiraine (2012), they include: the National Policy on Heritage and Culture; Traditional Medicines and Medicinal Plants Policy; Legislation on Folklore and Genetic Resources and the National Environmental Monitoring Agency (NEMA) Act. The Constitution of Kenya 2010 gives IK special recognition in its expressions of culture. In chapter one, the constitution recognizes IK as the foundation of the nation and the cumulative civilization of the Kenyan people and nation. Specifically, the constitution makes the following pronouncements regarding culture that have direct implications on IK: “the State shall

- Protect all forms of national and cultural expressions through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage
- Ensure that communities receive compensation or royalties in the use of their cultural heritage and
- Recognize and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics and their use by communities of Kenya.”

The fact that IK is mentioned in the Bill of Rights underscores the significance that the country attaches to IK. Besides all these, Kenya is a signatory to different

conventions that touch on IK, for example Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Union for the Protection of Plant Variety (UPOV), the International Treaty on Plant Genetic Resources for Food and Agriculture, the Convention for the Protection of World Cultural and Natural Heritage of 1972 and the Convention on the Conservation of Migratory Species of Wild Animals of 1979, to mention but a few. The Convention on Biological Diversity (CBD) through article 8 makes special reference to the protection of IK by assigning the ownership of biodiversity to indigenous communities and individuals and encourages equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

It is worthy pointing out that whereas there are studies on indigenous knowledge, most have been done elsewhere in the world, and where they have been done in Kenya, they have been done so in their various genres but not linked to FM radio stations, a gap that this study seeks to fill. A recent study by Maina (2009) on Traditional Knowledge Protection Debate is closely related to this study; however, its focus was on traditional knowledge in Canada, while this research is on IK vis avis dissemination by FM stations in Kenya. It is thus important to assess the role played by the media in disseminating IK and where possible make recommendations on how this role can be improved.

Like in other African countries, dissemination of Indigenous Knowledge in Kenya is done through folk media and contemporary media. For folk media, mainly the elders and family heads are the main transmitters of IK because of their experience and knowledge accumulated over long period lived. Folk media entails songs, dance, poetry, storytelling, ceremonies, festivals, work related activities, rites of passage and others that are the commonly used methods of communicating IK to various audiences. Contemporary media (modern media) encompasses both print and electronic formats. For print formats, from time to time IK articles are published in newspapers, books, brochures and other publications. This presupposes that the entire audience is literate and therefore can read documented sources of IK. However, it is a fact that not everybody knows how to read and write, meaning that only a section of the audience is able to access this knowledge at the expense of those who can neither read nor write. Electronic media such as internet, radio and television are also handy in Indigenous Knowledge dissemination. Internet is used in IK dissemination programmes but like the other modes of dissemination, not all people are able to exploit internet for accessing IK either due to technological divide or poor connectivity. Finally, community radio stations are shaping the radio landscape, with 46% of all radio listeners tuning in to community radios. According to Communication Authority of Kenya (2015), there has been a steady upsurge in TV stations from about 15 in 2013 to over 50 in 2015, and an unconfirmed number of print newspapers and magazines of which are four main dailies (Daily Nation, The

Standard, People Daily and The Star). Publications mainly use English as their primary language of communication, with some media houses employing Kiswahili.

Despite inadequate legislation empowering community and alternative media, there has been a promising rise in community radio stations over the last decade. Community radios are most often funded by development agencies and strive to provide small, rural, and/or remote communities with reliable news and information in order to inform and stimulate public debate. According to the Government Advertising Agency (2015), Kenya has more than 200 radio channels comprising national, regional and community radios. National radios include KBC Radio and Citizen Radio that have a countrywide coverage broadcasting in English, Kiswahili and local languages such Kikuyu, Dholuo, Luyia, among others. Most of the community radios focused on music and entertainment but this quickly shift to public discussions due to audience demand. The radio stations have therefore set aside much of their airtime to talk-shows and phone-in programmes especially in the morning. Nearly all the FM radios have highly popular talk shows and phone-in programmes, often in the morning prime time slots. The talk shows have become outlets for public debates and are used as an expression of voices that had been hitherto suppressed. However, it is unfortunate that three quarters of the discussions on a daily basis are centred on sexuality at the expense of other socio-economic pressing issues.

The practice is replicated in programmes that touch Indigenous Knowledge through which IK programme hosts and custodians interact with their audience through

presentation, listening and calling in. The purpose of hosting IK programmes is to enable society tap from the experience of the IK custodians so that the knowledge gained can be applied for the social economic wellbeing of society. Radio stations such as Kameme, Muga, Inooro, Ramogi, Sulwe, Masinde Muliro University Radio, Radio Mambo, Nyota FM and West FM among others have incorporated IK dissemination in their programmes. West FM is based in Bungoma County and serves audiences in Western and North Western (North Rift) topographies. It has various programmes on IK dissemination such as Kipindi cha watoto that targets children listenership, Lumasaba, litungu and others.

The increasing shift to local radio program production and broadcasting has lessened barriers of language and dialects. Consequently, radio has become a valuable medium of communication and dissemination of knowledge. Most radio stations are broadcasting Indigenous Knowledge programmes. All these developments are good for IK dissemination but then, the content aired, geographic reach, language used, scheduling, timing and listenership perception of the IK programmes and the extent to which the programmes address socio-economic needs among other indicators of measuring the programmes are not known. Secondly, not all rural dwellers own radios and even those who do, batteries to power radios are expensive for some of them to purchase on a regular basis, and this therefore excludes some potential listeners from listening to these programmes. Thirdly, recurrent signal transmission problems hamper effective use of radio in community development. Finally, radios provide potential for abuse because of their ubiquity and ease of access. In some

cases using the radio to freely express ideas can built communities of hate. It can be abused by politicians and other leaders in society (Hartley, 2000). Therefore, since lots of resources are pumped into these programmes it was important to establish the viability of the programmes so as to avoid a situation in which resources go to waste.

1.3 Statement of the Problem

Indigenous knowledge is recognized globally as an important ingredient of development. Dissemination of such knowledge is now at the forefront of the international development agenda. This is evident from increased publications on IK, rapid growth in the number of NGOs and research institutions involved in IK activities. Dissemination of indigenous knowledge in the African setting predominantly dependents on folk media such as songs, dance, poetry, storytelling, ceremonies, festivals, work related activities, rites of passage among other methods. However, there is an increase in the use of radio to leverage the dissemination of indigenous knowledge. Radios are extensively used as a communication medium in Africa to support educational programmes in teaching, health, literacy training, nutrition, and promotion of changes in farming practices to improve agricultural production.

Like in other African countries, dissemination of indigenous knowledge in Kenya is done through folk media and contemporary media. This is not only for protecting and preserving this resource but also to ensure that it is disseminated and leveraged appropriately for social economic development. Community radios are expected to pursue social economic development agenda, respond to the community's expressed

needs, and be accountable to their stakeholder communities through an interactive and consultative process. However, the extent to which FM radios such as the West FM IK programmes addresses community indigenous knowledge needs and socio economic development matters is not known.

Further to this, despite West FM's efforts in disseminating indigenous knowledge, its IK programming, acceptability, timing, presentation and uptake by the listenership is unknown. Besides, though the coverage topographies are known, the exact market penetration of the Indigenous Knowledge programmes is not clear. More so, the dissemination process presupposes that the listeners have radios and other forms of media to listen to the programmes. On the contrary, not everybody or household in the coverage area owns a radio, and even if they were to own radios, there is no guarantee that they will always afford to purchase batteries to power their radios to listen to the programmes. If the situation continues, a lot of resources are likely to go to waste and therefore the envisaged socio- economic development may not be realized. Without evaluation, it may not be possible for West FM management to establish grey areas in its IK programmes that require improvement. This study therefore evaluated the West FM indigenous knowledge programmes to determine their contributions to socio- economic development of Western Kenya communities and suggested interventions for improvement in areas that required redress.

1.4 Purpose of the Study

The purpose of the study was to evaluate media so as to determine its adequacy in disseminating Indigenous Knowledge for socio-economic development of diverse communities of Western Kenya.

1.5 Objectives of the Study

- i) To determine listenership levels of West FM indigenous knowledge programmes.
- ii) To evaluate indigenous knowledge domains and practices in Western Kenya.
- iii) To assess the programmes and tools used by West FM radio for disseminating indigenous knowledge.
- iv) To evaluate IK domains and practices disseminated by West FM radio
- v) To establish contributions of West FM IK programmes to the socio-economic development of local communities'
- vi) To establish the challenges encountered in the dissemination of Indigenous Knowledge by West FM. radio.

1.6 Research Questions

These are guidelines that assisted the researcher to interrogate the objectives of the study. They included:

- i) What are the listenership levels of West FM indigenous knowledge programmes?
- ii) What are the indigenous knowledge domains and practices found in Western Kenya?

- iii) Which are the programmes and tools applied by West FM in disseminating indigenous knowledge?
- iv) What are the indigenous knowledge domains and practices disseminated by West FM radio?
- v) In which ways do the West FM indigenous knowledge programmes address socio-economic development needs of the local communities?
- vi) What are the challenges faced by West FM in its endeavors to disseminate indigenous knowledge?

1.7 Assumptions of the Study

The study was underpinned by the following assumptions:

- ii) Media houses are key stakeholders in leveraging IK for socio-economic development.
- ii) Efforts to apply IK in Kenya's socio-economic development are faced with different challenges.

1.8 Limitations of the Study

Like any other research undertaking, this study was done within the framework of epistemological limitations. Objective knowledge is inherently limited because of falsified background theories, methodologies and observations. The complex nature of IK, its ownership by the rural folks and its underdeveloped nature undermined the robustness of the area for study. The study however made use of the most ideal methodological designs with regard to validity and reliability of instruments of data collection. Finally, the study only covered oral aspects of Indigenous Knowledge.

1.9 Delimitations of the Study

The delimitation of this study can be described in terms of institutional and subject limitations. Going by its objectives, this study focused on the role of media houses in the dissemination of IK in terms of IK resources, systems and practices. To make the study manageable, but with adequate controls for generalization, this study focused on the West FM Radio station and its listenership topographies of Western and North Rift.

1.10 Significance of the Study

Theoretically, it is noted that there are no properly developed study framework for tapping and disseminating IK, particularly in relation to the media houses. This has a lot to do with the fact that IK systems have been overshadowed by scientific approaches. On the other hand, the available models have not been adequately tested and applied in the media context and in developing countries. Basing on the different existing study models, from the perspective of media industry, this study has proposed a framework for disseminating IK by the media.

Practically, the role of IK in development has been extolled widely in literature, with its application cutting across almost all sectors of development in society. This study opens doors for disseminating IK resources for national development. To this extent, the findings from this study, if implemented will open new frontiers in the country's socio- economic development.

In policy matters, many countries have made efforts to acknowledge and incorporate IK management activities in their policy instruments. A case in point is Zimbabwe (Steiner, 2004). In Kenya, there is no clear evidence that this has been the situation. The development of policies of this nature depends immensely on the availability of adequate, theoretical information to guide policy makers. The findings of this study are important to policy makers in case of formulating IK policies and incorporating them into other national policy instruments.

The study is equally important to the scholarly world. It does not only contribute to the body of knowledge but also forms a basis for further research in the field of Indigenous Knowledge. The findings are relevant to scholars and researchers in related disciplines for purposes of research, learning and teaching. Finally, the study is also relevant to the indigenous people. In case the recommendations on the use of language that is less complex is implemented by the radio station, then the majority of the listeners including the youth will comprehend the IK discourses aired with little or no difficulty. Secondly, since the study amplified matters of culture and morality among other important aspects affecting the indigenous people, it is a reliable complimentary source of indigenous knowledge for those who want to appreciate further, the West FM IK programmes.

1.11 Theoretical Framework

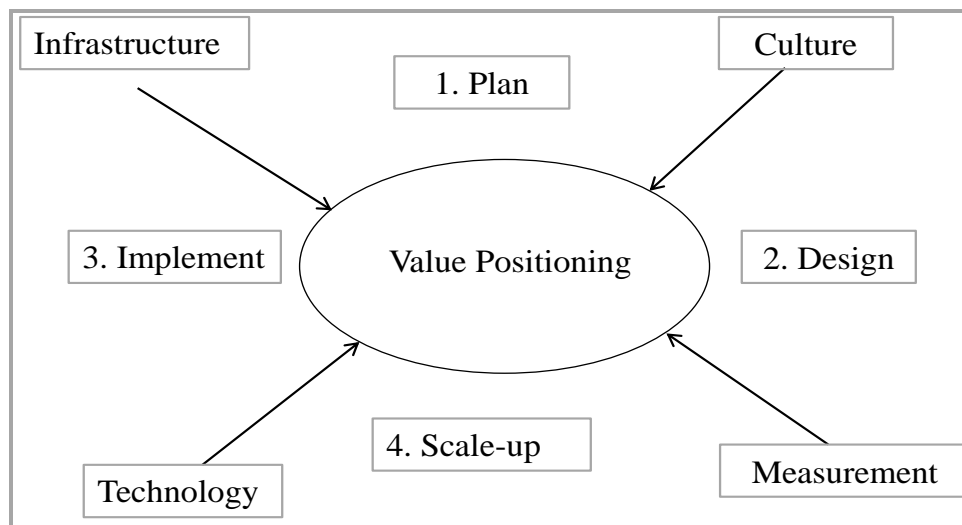
Research theories and models are formulated to explain, predict and understand a phenomenon. A theoretical framework introduces and describes the theory which explains the research topic by outlining the relevant concepts together with their operationalization. Ultimately, it acts as the conceptual basis for understanding, analyzing and designing ways to investigate a research topic. Ennis (2011), asserts that a theoretical framework is a structure that identifies and describes the major elements, variables or constructs that organizes research work.

According to Abdulla *et al* (2002) models help people to understand the complexity of real systems by representing the main features and dividing the larger system into parts. To this end, KM models provide a structured approach to help organizations apply and implement KM successfully. However considering that different models have disadvantages and limitations, every researcher needs to choose such a model that is most suited to the area of study. According to Ahmad (2010) some of the general models of KM include knowledge maps (Lin *et al*, 2006); SECI model (Nonaka and Takeuchi, 2005); KM models (Abdullah *et al*, 2002); Activity Based KMSs (Tserng and Lin, 2004; Ontology Based KMSs (Grubr, 1992) and Knowledge Transfer Model (O'Dell and Grayson, 1998).

In the light of the fact that there is no perfect model of Knowledge Management and by extension Indigenous Knowledge, the Knowledge Transfer Model though

developed in the context of KM, is relevant for this study because of the transfer and sharing of knowledge aspects that are closely related to IK dissemination.

The model was developed by O'Dell and Grayson's in 1998. The model mainly considers the transfer side of knowledge which is key to the dissemination and utilization of IK in society. It comprises three main components: strategic value position, four enablers and four step change process as illustrated below.



Source: Dell and Grayson (1998)

Figure 1.1: Knowledge Transfer Model: Enabling Environment

Value positioning focuses on capturing knowledge in a specific area, such as indigenous knowledge. Emphasis is given to a specific area of knowledge in terms of capture and transfer (dissemination) to the intended audience. For all this to be done effectively, the model analyses the contingent factor called four enablers. The four enablers include culture, technology, infrastructure and measurement. Culture as an enabler is one of the component that is not altered easily in a society. Culture affects

IK in that any knowledge process that challenges culture will be opposed by members. This means that institutions such as West FM Radio should foster a culture that takes cognizance of good KM and by extension IK practices. Noting that KM is a social activity, some of the preferred cultural perspectives in an organization include: Belief that the people want to share knowledge; being prepared to lead by doing in all aspects of good KM practices; developing collaborative relationships; instilling personal responsibility for knowledge creation and sharing; and creating a collective sense of purpose.

On the other hand, technology plays a major role in all aspects of knowledge management. It provides the channels for reaching out to people with indigenous knowledge. The operation of any media station is defined by the use of ICTs at all levels. The study was interested in how technology is applied in the dissemination of IK. A well-developed infrastructure is meant to enable the successful transfer (dissemination) of IK. The model came up with three approaches in the design of a robust KM infrastructure: Self-directed infrastructure which takes the form of databases or libraries in the organization (media stations). This is very important in helping users to locate knowledge; Knowledge services and networks as a second approach is concerned with the kind of services and networks created to facilitate KM and therefore IK activities in the context of West FM; and, the facilitated transfer that refers to a full service approach, a situation whereby an institution establishes a full unit to address matters pertaining to KM, within a specific domain like IK.

The final enabler according to the model is measurement, a component whose focus is on evaluation of knowledge transfer (dissemination) process. The model does not give any specific way of evaluation, but concludes that the key to effective evaluation lies in looking into the success of all the activities put in place in respect to knowledge (IK) transfer or dissemination.

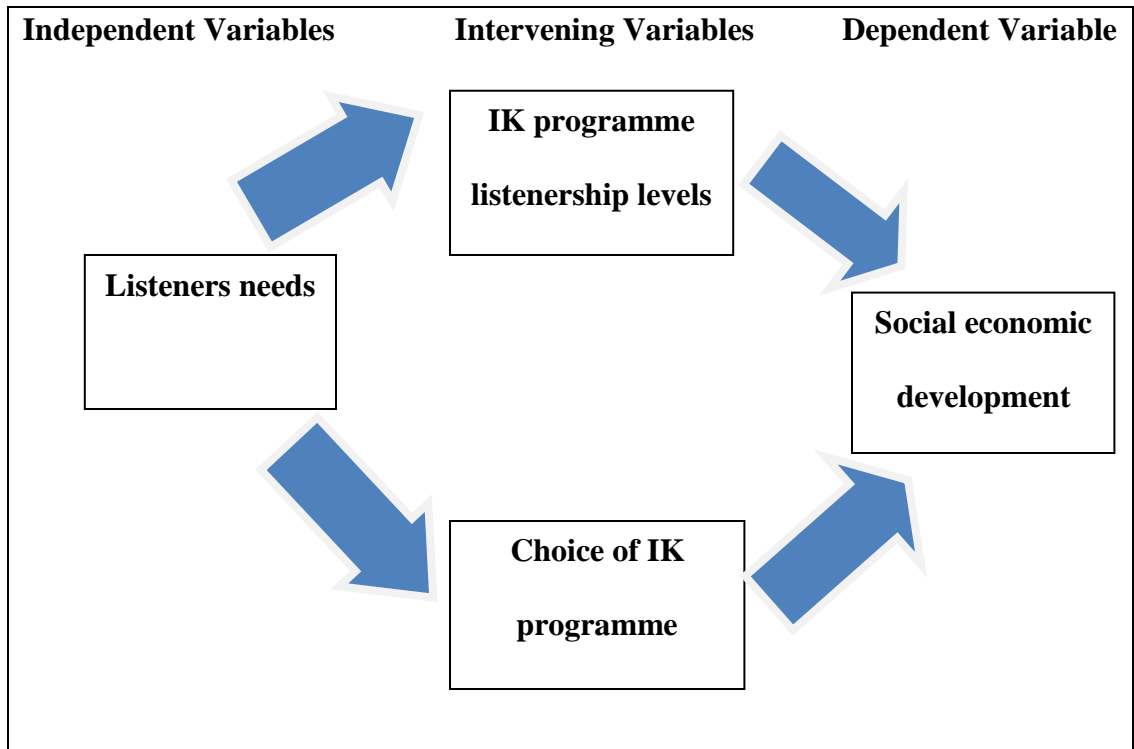
It is in this aspect that evaluation of indigenous knowledge dissemination is embedded. Therefore the study was informed by this model as was slightly adapted in the conceptual framework in figure 1.3.

1.12 Conceptual Framework

Miles and Huberman (1994), defines conceptual framework as a visual or written product, which explains either graphically or in a narrative form, the main things to be studied: key factors, concepts or variables and the presumed relationships among them. The importance of this is to help a researcher define research objectives, develop realistic research questions, select appropriate methods and identify potential validity threats to the study.

In figure 1.2, the independent variable is the listeners' needs; the intervening variables are IK programmes, choice of IK programmes and listenership levels while the dependent variable is socio- economic development. In this case, listeners needs determine listenership levels and programme choices. In other words, it is the listeners' knowledge needs that provoke listeners to choose and tune into a given IK

programme. Consequently IK programmes, chosen and listened to directly or indirectly informs socio-economic development of the community.



Source: Researcher, (2015)

Figure 1.2: Conceptual Framework.

1.13 Operational Definition of Terms

Bodaboda Operators: People who use motorcycles and bicycles to offer transport services.

Community Knowledge Icons: Community Knowledge Custodians i.e. Elders by virtue of their age are assumed to be knowledgeable about community and life matters.

Community Radio Station: Community radio is a radio service offering a third model of radio broadcasting in addition to commercial and public broadcasting. Community stations serve geographic communities and communities of interest. They broadcast content that is popular and relevant to a local, specific audience. Community radio stations are operated, owned, and influenced by the communities they serve. They are generally nonprofit and provide a mechanism for enabling individuals, groups, and communities to tell their own stories, to share experiences and, in a media-rich world, to become creators and contributors of media.

Dissemination: the act of spreading something, circulated widely especially information.

Knowledge: facts, skills and understandings that one has gained especially through learning or experience which enhances one's ability of evaluating context, making decisions and taking action.

Indigenous Knowledge: the knowledge belonging to a specific ethnic group, knowledge that is unique to a given culture or society. According to UNESCO (2002), indigenous Knowledge is related to common practices seen in communities that are indigenous to specific area. It is synonymous with traditional knowledge. Accordingly, indigenous knowledge is also referred to as traditional knowledge or

local knowledge (a large body of competences and skills that has been developed outside formal education system). On the other hand, UNEP (2009) defines IK as the knowledge that a local community or local communities accumulates over generations of living in a particular environment.

Indigenous Knowledge Systems; Refers to the content or substance of knowledge resulting from intellectual activity in a traditional context. It includes the knowhow, skills, innovations, practices and learning that form part of uncodified knowledge passed between generations.

Knowledge acquisition: Knowledge acquisition is the process of acquiring, processing, understanding, and recalling information through one of a number of methods. This is related to cognition, memory, and the way in which human beings are able to understand the world around them. Knowledge acquisition typically details how people experience new information, how that information is stored in the brain, and how that information can be recalled for later use.

Knowledge creation: The process that results into new knowledge or the process that organizes current knowledge in new ways to make techniques to use existing knowledge.

Knowledge discovery: is the process of discovering useful and previously unknown knowledge by analyzing large databases. Knowledge discovery is also sometimes called “data mining” or “applied machine learning.”

Knowledge harvesting: A structured approach to help an organization understand and record the knowledge and experience of people, often before they leave or move roles. The process involves identification of key knowledge areas, confirmation of individuals (custodians, elders, opinion leaders and others) who have this key

knowledge, preparation for the knowledge harvest interview, initial packaging of the material, and appraisal of the material, creation and publication of knowledge assets. It is also a way of drawing out and packaging tacit knowledge to help others adapt, personalize and apply it, built organizational capacity and preserve institutional memory.

Knowledge harvesting hinges on trust and is engendered by shared context. It requires focus (determination of crucial knowledge to connect with), finding out (locating critical positions where knowledge harvesting stands to generate most benefits), eliciting (generating, obtaining and provoking responses for answers), organizing (examination for sense, recurrent patterns and gaps), packaging (organization of insights into deliverable knowledge assets and made available through media) and adaptation (changing to suit a new purpose, sharing and applying knowledge)

Knowledge creation: The process that results in new knowledge, or the process that organizes current knowledge in new ways to make techniques to use existing knowledge

Knowledge Management: a systemic process for acquiring, organizing and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work.

Knowledge sharing. It is an activity through which knowledge is exchanged among people, friends, or members of a family, a community or an organization. In the study, it implies proactive ways of transferring knowledge from West FM to listeners, among listeners, family members and the community at large

Knowledge Society: A society that creates, shares and uses knowledge for the prosperity and wellbeing of its people

Knowledge transfer: The process used to pass knowledge from one individual to another, one individual to a community of listeners or from one organization to another

Media: means of mass communication (especially television, radio, newspapers, and the ICTs) regarded collectively.

Folk Media: These are the indigenous equivalent of mass media that are used primarily for entertainment, education purposes, promotion of values and cultural continuity.

Traditional Knowledge: This is knowledge, knowhow, skills and practices that are developed, sustained and passed on forming part of its cultural or spiritual identity. In a general sense, traditional knowledge embraces the content of knowledge itself as well as traditional cultural expressions including distinctive signs and symbols associated with traditional knowledge.. In a narrower sense, traditional knowledge refers to knowledge such as the one resulting from intellectual activity in a traditional context, and includes knowhow, practices, skills and innovations.

Topography: Coverage area; extent to which West FM reaches its audience

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The purpose of this chapter is to contextualize the study within the background of existing studies and theoretical conceptions of IK management by reviewing previous researches on the discipline. According to Onwuegbuzie (2012), literature review refers to a critical discussion and summary of literature that is general and specialized but relevant to a particular area of study. It serves to show the relevance and originality of the research topic; justifies the research methodology; discovers knowledge related to one's area of study; establishes gaps in an area of study and justifies need for the study in terms of originality. For the purpose of this study, the review of literature begins with general area in which the study is contextualized before narrowing down to themes as derived from the study objectives. The areas where literature is reviewed on IK encompass the concepts of knowledge, knowledge management, explicit and tacit knowledge. Literature on indigenous knowledge vis-à-vis traditional knowledge is reviewed; the IK discourse in the context of intellectual property rights is also reviewed. Other pertinent areas where literature has been reviewed include indigenous peoples of western Kenya, IK systems and practices, creation and transmission of IK, IK and social economic development, procedures for dissemination of IK, role of media in IK dissemination, challenges and Research gaps in the Dissemination of IK by the Media.

2.1.1. The Concept of Knowledge

Ahmad (2010), defined knowledge as facts, skills and understandings that one has gained especially through learning or experience which enhances one's ability of evaluating context, making decisions and taking action. Maglitta(1996) adds that knowledge is not found in the content, structure, accuracy, or utility of Knowledge Management. Rather, knowledge is information possessed in the mind of an individual: it is personalized or subjective information related to facts, procedures, concepts, interpretations, ideas, observations and judgments which may or may not be unique, useful, accurate, or structurable. Alavi and Leidner (2001) are agreed on this. They posited that knowledge only exists in human mind, in the users mind and not in collection and therefore knowledge process is related to an application in which the focus is on sharing, creating, adapting, learning and experience.

As such, since knowledge is personalized, it must be communicated in a manner that can be interpreted in order for one person's knowledge to be useful to another individual. Secondly, information may be of no value if it is not actively processed in the mind of an individual and shared or transferred to others through a process of reflection, enlightenment, and learning. Based on the work of Nonaka (1994) and Huber (1991), knowledge is a justified personal belief that increases an individual's capacity to take effective action. It is information made actionable. Action in this context requires physical skills and competencies e.g. playing tennis, or carpentry, cognitive/intellectual activity e.g., problem solving, or both (e.g., surgery which

involves both manual skills as well as cognitive elements in form of knowledge of human anatomy and medicine).

Knowledge which is the object of KM, is founded on data (raw facts and figures) which becomes information (data put into context of relevance to a given recipient) and then graduates to become knowledge (information combined with experience, understanding, capability and judgment). Knowledge has many features including the fact that it can be shared among people in the society through exchanging information in appropriate context.

For a long time people viewed knowledge as being synonymous with information. However, KLICON (1999) drew a distinction between the two by arguing that information refers to facts that are organized in a structured way, while knowledge embodies values, judgments, beliefs, perspectives and know-how of an individual, people or society. Therefore, knowledge is more than data and information in the sense that it combines information with experience to show methods and procedures used by others which can be reused in future to solve similar problems.

Awad & Ghaziri, (2004) and Bierly et al., (2000) tried to differentiate between three interrelated concepts (data, information and knowledge) by representing them in a hierarchy, with knowledge at the top, having the most value and meaning to the end users and data at the bottom and having most availability in the organization.. Knowledge is not radically different from information, but rather that information becomes knowledge once it is processed in the mind of an individual i.e. "tacit"

knowledge (Polanyi,1962) Nonaka (1994). adds that this knowledge then becomes information again (explicit knowledge) once it is articulated or communicated to others in the form of text, computer output, spoken, or written words or other means. The recipient can then cognitively process and internalize the information so that it is converted back to tacit knowledge. This is consistent with Churchman (1972) conceptualization of knowledge as resting in the user and not in the collection of information.

2.1.2 Explicit and Tacit Knowledge

Lin et. al, (2006) explained that explicit knowledge can be expressed formally, systematically and shared in terms of scientific formulae, specifications, manuals and the like. This type of knowledge is easily captured, shared and used because it can be expressed in words and numbers. According to KLICON (1999) explicit knowledge is readily available, recorded, codified/structured in a way that makes it easy to transmit, retrieve and use. This kind of knowledge resides in the diverse range of information sources, the internet and records of an organization.

Tacit knowledge on the other hand is more valuable since it combines information with skills, understanding and experiences of people. It therefore helps to reduce mistakes and improve decision making in organizations (Tiwana, 1999). This kind of knowledge is personal, as it is resident in individuals as memories, experiences, know-how and perceptions, and therefore poses a lot of difficulties in management. Tacit knowledge has been looked at in four aspects: embodied, intuitive, affective and spiritual. Each of these aspects represents the different sources of tacit

knowledge. Like Nonaka (2007), Bennet (2008) asserts that tacit knowledge cannot be expressed in formal language since it is based on intangible factors such as experiences, beliefs, perspectives and values. It is this characteristic that makes possible collaboration and sharing the strategies for utilizing this kind of knowledge. There is, however, a direct connection between tacit and explicit knowledge. Normally, tacit knowledge is turned into explicit knowledge through strategies such as knowledge capturing, publishing, categorizing and editing tools. This perspective continues to blur the dividing line between tacit and explicit knowledge.

Nickos (2003) identified another type of knowledge which has been called implicit knowledge. He described it as a type of explicit knowledge that has not been articulated due to different reasons including incomplete codification or capturing. This kind of knowledge is also accompanied with a lot of complications, since in most cases; individuals do not know that they have it. It differs from tacit knowledge in the sense that tacit knowledge cannot be put down into words or visuals.

The context of this study is however, media houses and the society within the framework of indigenous knowledge. For media houses, KM can be perceived as a framework of collecting information and disseminating it to the people so as to positively influence their life styles. The ultimate benefit therefore is related to the whole community. To this extent, this study addresses the question of how to create and transfer (disseminate) quality indigenous knowledge. KM techniques generally focus on actionable knowledge. This applies to indigenous knowledge as well.

2.2 Literature Related to the Main Concept

According to UNESCO (2002), indigenous Knowledge is related to common practices seen in communities that are indigenous to specific area. It is synonymous with traditional knowledge. Accordingly, indigenous knowledge is also referred to as traditional knowledge or local knowledge. This translates into a large body of competences and skills that has been developed outside formal education environment. On the other hand, UNEP (2009) defines IK as the knowledge that a local community or local communities accumulates over generations of living in a particular environment. This definition encompass all forms of knowledge such as technologies, knowhow, skills, practices and beliefs that enable a community achieve stable livelihoods in their environment. UNEP further asserts that different terms are used interchangeably to refer to the concept of IK, including Traditional Knowledge (TK), Indigenous Technical Knowledge (ITK), Local Knowledge (LC), and Indigenous Knowledge System (IKS). All these translates into vital competencies and skills in health, child upbringing, natural resource management etc as encoded in unique forms such as proverbs, myths, rituals and ceremonies but always shunned for modern scientific and technological information. For the purposes of this study, the concepts indigenous knowledge and traditional knowledge have been used interchangeably to imply the same thing.

2.2.1 Indigenous Knowledge Discourse

The international community has given special attention to IK (TK) in its discourses. In the Rio Declaration during the Convention on Biological Diversity, emphasis was

laid on the current and future relevance of IK. The World Intellectual Property Organization (WIPO) especially convention 169, the Food Agricultural Organization (FAO), UNESCO, UNDP, UNEP, the UN Commission on Human Rights and a number of other international organizations have similarly given IK unrelenting attention (Kothari, 2007).

The World Conference on Science organized by UNESCO and the International Council for Science (ICSO) in its declaration on science and the use of scientific knowledge specially recognized the importance of IK and the need to respect and encourage its use for various forms of human endeavors (ISCO, 2002) The UN declaration on indigenous peoples takes cognizance of the fact that respect for indigenous knowledge, culture and traditional practices contributes to sustainable development and proper management of environment. The United Nations Committee on Trade and Development (UNCTAD) has also given IK considerable recognition as far as its use and protection is concerned.

2.2.2 Indigenous Knowledge and Intellectual Property Rights

WIPO (2015) equates traditional knowledge (TK) also referred to as indigenous knowledge (IK) is a living body of knowledge passed on from generation to generation within a community. It forms part of a people's cultural and spiritual identity. The importance of IK cannot be gainsaid. IK has become an important aspect of the international agenda.

In accordance with WIPO (2014), indigenous peoples and local communities are traditional custodians of traditional/indigenous knowledge and cultural expressions. The peoples, therefore, play an important role in the maintenance, control, protection and development of their traditional knowledge and expressions

In the recent years, indigenous peoples, local communities and governments mainly from the developing countries have demanded equivalent protection of their indigenous and traditional knowledge systems. In 2009, an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) agreed to develop an international legal instrument that would give cultural expressions, traditional knowledge and genetic resources effective protection. WIPO avers that indigenous knowledge is not well protected by the current intellectual property system, which typically grants protection for a limited period to inventions and original works. Protection of traditional or indigenous creativity will enable local communities as well as governments to have a say over the use of their traditional remedies and indigenous art, music, medicine and folklore against misappropriation, and enable communities to control and benefit collectively from commercial exploitation.

Consequently, WIPO seeks to operationalize two types of property protection: Defensive protection that aims to stop people outside the community from acquiring intellectual property rights over traditional or indigenous knowledge and protect sacred cultural manifestations such as symbols or words from being registered as

trademarks. The second one is positive protection that seeks to grant rights that empower communities to promote their traditional knowledge, control its use and benefits from commercial exploitations. Use of indigenous knowledge can be protected through existing intellectual property systems as per legislation developed by some countries which, however may not be applicable to other countries. This gives credence to the agitation by many indigenous and local communities as well as governments to press for an international legal instrument.

From the literature available at www.wipo.int/tk/en/igc/, WIPO's work on traditional knowledge addresses three distinct yet related areas: traditional knowledge (technical knowledge, skills and innovations to biodiversity, agriculture, health etc). The other area is traditional cultural expressions such as folklore, music, arts, symbols and performances and genetic resources (actual or potential value found in plants, animals and micro organisms). Besides an international legal instrument, WIPO is responding to requests from communities and governments for practical assistance and technical advice to enable communities make more effective use of existing intellectual property systems and participate more effectively in the IGC's negotiations. WIPO's work includes assistance to develop and strengthen national and regional systems for protection of traditional knowledge and managing intellectual property rights and heritage when documenting cultural heritage. WIPO has also undertaken the initiative of documenting IK with a motive to preserve or disseminate it, share it and or use it. However, the concern is that if the documentation makes IK more available especially via the internet, it may lead to

misappropriation and use in ways not anticipated by traditional knowledge holders or owners of indigenous knowledge. As a best practice, WIPO advocates for the use for the use of traditional knowledge that is subject to free, prior and informed consent, especially for sacred and secret materials. With regard to traditional cultural expressions (folklore), protecting folklore contributes to economic development, encourages cultural diversity and helps preserve cultural heritage. Traditional or indigenous cultural expressions can sometimes be protected by existing systems, such as copyrights, geographical indications, and appellation of origin, trademarks and certification marks. For example, performance of traditional music may be put under the WIPO performance and phonograms Treaty.

On the other hand, the UNDP recognize land, in particular native or customary land as significant to indigenous peoples because it is the source of their livelihood and the base of their indigenous knowledge, spiritual and cultural traditions. The UNDP Consultation on the Protection and Conservation of Indigenous Knowledge in Asia posited that indigenous peoples' struggle to self determination is a very strong counterforce to the intellectual property rights system vis-a-vis indigenous knowledge, wisdom and culture. Therefore their struggle for self determination cannot be separated from the campaign against intellectual property rights systems, particularly on indigenous knowledge. According to Posey and Durfield (1996), the UNDP raises the following concerns: intellectual property rights and misappropriation of indigenous knowledge without their prior knowledge and consent evokes feelings of anger, of being cheated, and helplessness in knowing

nothing about intellectual property rights and indigenous knowledge privacy. This is akin to robbing indigenous peoples of their resources and knowledge through monopoly rights. Its position is that indigenous people are not benefitting from the intellectual property rights system since indigenous knowledge and resources are being eroded, exploited, or appropriated by outsiders in the likes of transnational corporations (TNCs), institutions, researchers and scientists who are after the profits and benefits gained through monopoly control. Technological method of piracy is too sophisticated for indigenous peoples to understand, especially when indigenous communities are unaware of how the system operates and who is behind it. Indigenous peoples therefore find it difficult to relate intellectual property rights issues to their daily lives. Accordingly, the patenting of any form of life process and forms is unacceptable to indigenous peoples. More so, the intellectual property rights system is in favour of the industrialized countries of the North that have the resources to claim patent and copyright, resulting in continuous exploitation and appropriation of genetic resources, indigenous knowledge, and culture of the indigenous peoples for commercial purposes. Last but not the list, the intellectual property rights system totally ignores the close interrelationship between indigenous peoples, their knowledge, genetic resources and their environment. The proponents of intellectual property rights are only concerned with the benefits that they will gain from the commercial exploitation of these resources.

The Consultative forum proposed a plan of action that emphasizes the following activities relating to indigenous Knowledge: Strengthen the indigenous peoples'

organizations and communities to be able to collectively address local concerns related to indigenous knowledge and intellectual property rights; continue the indigenous people' struggle for self determination since this can be a strong counter force against the threats posed by intellectual property rights systems on indigenous knowledge and genetics; raise awareness of indigenous peoples' organizations and communities on the global trends and developments in intellectual property rights systems, especially as they apply to life forms and indigenous knowledge.

UNESCO-WIPO (1985) underscores the importance with which the international community attaches to indigenous knowledge. UNESCO and WIPO produced a model of provisions for National laws on protection of folklore against illicit exploitation and other prejudicial actions. The intention was to go beyond conventional copyright by protecting intangible expressions as well as fixed works. According to the model, folklore encompasses folktales, folk poetry, riddles, folksongs, instrumental music, folkdances, plays and artistic forms of rituals. It also comprises drawings, paintings, carvings, sculptures, pottery, terracotta, mosaic, woodwork, metal ware, jewellery, basket weaving costumes among other expressions.

The model demands that certain uses of folklore expressions are subject to prior authorization by a competent authority or the community itself if they are made both with gainful intent and outside their traditional or customary context. According to WIPO (1989), 'traditional context' means 'in proper artistic framework based on

continuous usage by the community while 'customary context means in accordance with the practices of everyday life in community. Four other types of prejudicial action that may be subject to criminal sanctions include failure to indicate ethnic and geographic source of an expression of folklore. In printed publications and other communications to public, unauthorized use of expression of folklore author authorization is required, deliberately deceiving the public about the ethnic source of production and any public use that distorts the production in a manner prejudicial to the cultural interest of the community concerned. The rights covered in the model provisions have some characteristics of copyright law, in that they protect the community (creators of artistic expressions) and neighbouring rights in that they can protect performance.

The model provisions has inherent advantages in that they protect both fixed and unfixed works of folklore, which are rare in national copyright laws, the period of protection is indefinite, the protection goes beyond neighboring rights, which only prevent performance, recording, and broadcasting works, and includes rights similar to the moral rights that exists in some copyright laws and even appellation of origin. The provisions also recognizes the need to balance protection from abuse of folklore against freedom and encouragement of its further development and dissemination

2.3 Indigenous Peoples of Western Kenya

From the ethnical, linguistic and political points of view, the Luyia do not form a homogeneous group even though they are clearly distinct from the surrounding

tribes. The Luyia comprise the Bukusu, Maragoli, Tiriki, Tachoni, Samia, Banyala, Wanga, Basotsotso, Isukha, Idakho and a host of other Luyia sub ethnic communities. According to Wagner(1949), the North Kavirondo district (Vihiga, Kakamega, Busia and Bungoma) comprises a multi-ethnic composition with the majority being Luyia speaking peoples, the Nilo Hamitic Teso and the Elkony on the slopes of Mt. Elgon and the Ngomek who seem to have been assimilated into the Bukusu community.

There are three major ethnic communities in Bungoma County. The majority are the Bukusu who together with the Tachoni are the largest community in the former Western province. The other ethnic group is the Sabaot, a section of the highland Nilotes and the Kalenjin. These are the largest of the minorities, living almost exclusively in Mt. Elgon Sub-County. There is a tiny pocket of their cousins (Bonkomek) who are assimilated into the Bukusu community and are believed to have been among the original inhabitants of Bungoma. The last ethnic group are the Iteso who live in the south western part of Bungoma County and the northern part of Busia County. These are reverian section of the Nilotes and are part of the wider community of the Iteso living in Eastern Uganda around Tororo town making a continuum along the Kenya Uganda border. In Bungoma County, the Teso or Iteso live around Malakisi town, Changara sub location in Sirisia Sub-county, and Cheptais and Kimilili sub counties respectively. Other communities that have become part of this region by way of business engagements are the Kikuyu, Asians and Nubians among others (KNA, DC/NN3/1/1).

In Busia the predominant Luyia subgroups are Abamarachi, Abakhayo, Abasamia and Abanyala each of which has a congeries of heterogeneous clans of numerous and different origins. According to Were (1967), these clans came from one broad linguistic area to the west- Busoga, Bunyole, parts of Buganda and Bugishu from where the general Luyia substratum of language and culture, homogenized to a large extent by mingling and mobility after arrival. The other ethnic group are the Teso who are homogenous and distinct culturally and linguistically from their Abaluyia neighbours.

2.4 Indigenous Knowledge

Indigenous Knowledge (IK) is the basis for community level decision making in areas pertaining to food, security, human and animal health, education, natural resource management and vital economic and social activities (Warren, 1991). To Rajasekaran (1992), indigenous knowledge is a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture.

On the other hand, Gorjestani (2000), defined Indigenous Knowledge (IK) as the basis for community level decision making in areas pertaining to food, security, human and animal health, education, natural resource management and vital economic and social activities. This knowledge is used at the local levels as a basis of decision making on a wide range of issues and has been a key social capital in helping people have control over their lives. IK embodies knowledge that people in

their local communities have developed themselves for centuries. This knowledge is a resource that has helped people to solve local problems, grow more food, maintain healthy lives, prevent conflicts, manage local affairs and therefore contribute to global solutions. In particular, it is acknowledged that IK can contribute to the realization of the millennium development goals such as eradication of hunger and poverty. Sithole (2007) adds that indigenous knowledge is predominantly tacit, embedded in the practices and experiences of its holders, commonly exchanged through personal communication and demonstrations from the teacher to the apprentice, from parents to children, from neighbor to neighbor.

Nuffic (2002) argues that many definitions are used to define IK, depending on situation and contexts varying from field practices to methodologies. The meaning also varies depending on specific aspects that the writers want to stress. In any case, local people have their own words for the ancient knowledge and practices; the need for definition therefore only arises when the practices are translated in western terms. Generally, IK refers to local knowledge that is unique to a given culture or society. It is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities. Indigenous or local knowledge refers to a complete body of knowledge, know-how and practices maintained and developed by peoples, generally in rural areas, who have extended histories of interaction with the natural environment (Nakashima (2000)). These sets of understandings, interpretations and meanings are part of a cultural complex that encompasses language, naming and

classification systems, practices for using resources, ritual, spirituality and worldview. It provides the basis for local-level decision-making about many fundamental aspects of day-to-day life: for example hunting, fishing, gathering, agriculture and husbandry; food production; water; health; and adaptation to environmental or social change.

Nuffic (2002) also adds that IK is the information base for a society, which facilitates communication and decision-making. It is knowledge that people in a given community have developed over time, and continue to develop. It is based on experience, often tested over centuries of use, adapted to local culture and environment. An analysis of these definitions indicates the following characteristics of IK. That IK is locally bound, indigenous to a specific area; culture- and context-specific; non-formal; orally transmitted, and generally not documented; dynamic and adaptive; holistic in nature and closely related to survival and subsistence for many people worldwide. Finally, IK is a powerful resource of rural peoples and therefore a key element in the fight against poverty and social exclusion for many rural communities worldwide.

2.4.1 Indigenous Knowledge Domains and Practices

Belief system was and is the glue that cements the social fabric of the Luhya people. Beliefs are sets of ideas about the physical, natural, social and supernatural environments of people. These can be in the form of superstitions, magic or

witchcraft, myths, taboos and religion, all being areas of human experience that are based on faith and therefore not open to question (Were, 1986).

In religion for example, the conceptualization of God was based on Were/Wele (God) depending on the dialect that one speaks. God was also known as Khakaba, the provider for each individual. He was thought to be the light, lived up in the skies as opposed to spirits of the ancestors which lived in the underworld. Among the local communities of Busia for example, prayers or incarnations for good fortune or sacrifice, Were/Wele was not invoked in isolation from named ancestors who were considered closer to the people than Were, although not considered as actual intermediaries between the living. Communication between the living and the living dead was engaged through sacrifices in which pieces of meat, food, dung and beer were offered to named ancestors to eat and drink. While there were individual, family and communal shrines for the spirits of ancestors, there was none for Wele as we have churches, synagogues, temples and mosques today. A shrine was a miniature house two feet tall with a thatched roof. The inside comprised three stones with a central pole running to the mid roof top. This was the altar for sacrifices and the spot where the oldest male member of the family stood at sunrise, before anyone else opened his or her door, to spit saliva to the east asking Wele to bless him and his family for the day. The incarnation was repeated in the evening where he would spit saliva facing the west asking *Were* for a goodnight.

Rainmaking is yet another indigenous practice in community knowledge realm. There were rainmakers in nearly all the major clans of the luyia ethnic communities.

In case of prolonged drought, *Omwami* (leader) would consult with diviners to establish the possible cause and then invite an individual rainmaker to remedy the situation, either singly or by involving the entire community in a cleansing ritual to appease the heavens to release rain. Among the Teso, a ritual was performed in public in which young people performed jumping dance the whole day. As the rain dance continued medicine men boiled rainmaking herbs in huge pots. Rain is said to have started falling while the dance was still in progress.

Witchcraft is also prevalent in luyialand. Witchcraft and poisoning are still pervasive among the Luhyia and Teso communities. Various practices among the Luhyia constitutes witchcraft. For instance, *Omubini/omulosi* is a night runner who carries scary paraphernalia and pets such as leopards or cats that make scaring sound such that the affected people do not get a wink of sleep. Though the person is considered harmless, the disturbance and chaos created by the nocturnal runner are frowned upon. When caught, such a person had a sad end. A peg was driven through the anus until the person died or through one ear to come through the other ear. This practice is hereditary but not every child inherits the bad practice. The other harmful practice is *liloko* (bewitching). Unlike *omubini*, people with *liloko* may harm others not necessarily by use of poison but with sorcery and manipulation. The trademark of witches is unconventional and weird practice of keeping animals which are not human friendly such as leopards, wild cats, snakes etc. Finally, witchcraft is also manifested through *khukhupa bikumba* literally translated as beating or throwing bones among the Bukusu or *ebikhokho* among other Luhyia communities. This is

basically the evil eye, which is thought to give rise to swollen stomach especially among children. A victim of this type of witchcraft can be helped by an expert who performs *okhulumikha* or *khurusia bikumba* (sucking the evil materials from the stomach using a special horn). These practices are normally inherited from a parent or grandparent of the same sex but enriched through practical learning and application of the art (Republic of Kenya, 1986).

Luyia language is one of the three language groups within the Lacustrine Bantu. Linguistically Luyia refers to a cluster of nineteen dialects spoken on both sides of the Kenya Uganda border, although in practice, only the speakers of the language in Kenya are referred to as the Baluyia. The nineteen dialects can be classified into larger groups such as the Western Luyia comprising Nyala, Songa, Samia and Gwe of Eastern Uganda, and central Luyia that comprises Marachi, Khayo, along with Wanga, Marama, Tsotso and other dialects in Kakamega County. On the other hand, in linguistic classification, Guthrie (1970) classifies Bukusu as a Bantu language under the Masaba-Luyia group whose closest sisters are the Gisu and Kisu of Uganda and not other members of the present day Luyia.

Mberia (1986) points out that Bungoma County is characterized by language diversity. Among the most prominent languages spoken in Bungoma are the Bukusu, Sabaot, Tachoni, Teso, Kiswahili and English. The indigenous communities of Bungoma are the Bukusu, Sabaot, Tachoni and Teso distributed in different geographical zones. Sabaot is spoken mainly in Mt. Elgon (Kony and Pok) and also

in Sirisia and Kanduyi divisions where the Bongomek are domiciled. On the other hand, Teso is spoken in south-west of Mt. Elgon Sub County. It is also spoken in Cheptais, Sirisia and extends into Busia County and the Eastern Uganda. Last but not least, Tachoni is spoken in Ndivisi division and adjacent Kakamega County. Finally, the remaining areas of Bungoma are occupied predominantly by Bukusu speakers. One striking aspect of language use is the tendency of other language speakers to speak Bukusu fluently, while the reverse seems not to be true. The demographic and economic status of the Bukusu speakers tends to make the language a kind of mini-lingua franca at least in the county. This is owed to the fact that both demographically and economically, the Bukusu are the most dominant.

Though the Luyia ethnic groups are able to understand the Luyia community of dialects as spoken in different parts of western Kenya, there are variations in language dialects as distributed in each county. Soper and Mould (1986) posits that there are five identifiable speech groups in Busia four of which are subsumed to be under the general designation Luyia. The abanyala, Abasamia, Abamarachi and Abakahayo all speak Luyia dialects

The fifth is the Ateso. Soper (1986) adds that the Western and central Luyia are very closely related and have a high degree of mutual intelligibility. In fact, the two are significantly closer to each other than either the Northern (Bukusu and Gishu or Southern (Idakho, Isukha, and Logooli)

2.5 Creation and Dissemination of Indigenous Knowledge

The IK embodied in traditional education transmitted by the people of western Kenya had common cross-cutting aims. They included: discipline, teaching children about their culture, preparing children to become good members of society and equipping them with necessary knowhow and skills for their future roles in their respective communities. According to Wandibba (1979), this knowledge was and is created and transmitted to the child by the family, the clan, the ethnic community as well as by initiation, work, oral traditions, social ceremonies and play. Indigenous knowledge in contrast to formal knowledge is handed over orally, from generation to generation, and is therefore seldom documented. Using indigenous knowledge in development enterprises enables indigenous peoples and local communities to actively participate in the decision-making process

Because of their close linguistic and socio cultural relationships, the types of education given to the children among the Luyia ethnic communities and their neighbours (sabaots and Iteso) was almost identical but with variation in some aspects of culture. This is because of the long historical links that the western Kenya ethnic communities have had with each other. Just as is the case with contemporary education, in the traditional setting, children were given different forms of education at different stages of their growing up.

IK is usually disseminated through various contexts including rituals, ceremonies, teachings and cultural events. Settee (2007) argued that some of this knowledge is

timeless, such as those which address human values like sharing, caring and interdependence. Unlike individual knowledge that is propagated by the formal school system, IK is a community property. The concept of community is generally an extension of the family and many community members have family ties. This kind of relationship extends to the animals and the natural resources.

Wandibba (1979) adds that the indigenous knowledge disseminated to children in most of the communities of western Kenya was practically-oriented. It was meant to equip the child with practical skills that would enable him or her to play his or her role in adult life. Morality and good conduct were also stressed. Peer-ship and initiation ceremonies emphasized the importance of co-operation and unity among the individuals in every society.

According to the Ministry of Culture and Social Services (1981), the child underwent training right from birth to adulthood. The first training being at the infancy stage and the main things taught included walking, sanitary habits and weaning. This training was given mainly by the mother and nurses. The nurse was invariably female and could be either an older sibling or a close relative. The baby was induced to sit, crawl, stand and walk. In childhood, the training was basically on weaning. Weaning was meant to deprive the child of its dependence on the mother. Henceforth, the child was to learn from its peers, older siblings and from other members of the immediate family as well as neighbors. The important traits valued by all the western Kenya communities included obedience, respect and

responsibility. This type of training started early in the childhood and continued throughout the child's life. A disobedient child was chastised by inattention, teasing, threats of the supernatural sanctions, abuse, curses or beating.

Instructions were given in the form of riddles, proverbs, stories and songs. From the age of four to six years, children were expected to handle real chores. Education was differentiated on the basis of sex: Boys were expected to learn mainly herding whilst the girls were exposed to farm work and housekeeping activities such as, house sweeping, fire lighting, cleaning utensils and fetching firewood among others. This type of training was holistic preparation of girl child to confront lifelong challenges including marital conflicts. Children were also taught about exploitation of their immediate physical environment such as distinguishing between edible and non edible vegetable materials and identification of harmful or poisonous plants.

The next stage of training or knowledge transmission to the youth was during initiation which played a crucial role in the education of the children in the communities under review. Initiation involves circumcision of boys among most Luyia speaking communities while both boys and girls are circumcised among the Sabaot save for some families that have abandoned the practice. In the traditional setting boys among both the sabaot and Luyia would be circumcised at the age of between 18 and 15 years. For the Bukusu and Tachoni, circumcision is done every August of an even year. The sabaots conduct circumcision practices in the month of December of every even year.

Amongst the Sabaot, each initiate had an instructor of the same sex. The instructors administered medicines, instructed initiates in dances, songs, positions to assume and other aspects of behavior, as well as teaching them the secretes imparted during that period. The instructors were normally young adults known to be of good character and morally upright. Among the Bukusu and Tachoni initiates, an instructor was provided after the operation. The instructor taught the male initiates how to look after the wounds and the dos and don'ts during the period they were nursing the wounds in seclusion.

It is important to note that the novices, after circumcision, were kept in seclusion until the wounds healed. On the third day after circumcision, the novices were lectured by the circumcisers on proper tenets of living. In the lecture, the circumciser emphasized respect for their parents and all old people as well as their age mates. They were instructed not to enter a married man's house otherwise they risked being arrested and fined or even being killed for committing adultery. They were told that should a married woman invite them for love making, such a woman should be taken to the bush and be made love to only once to avoid being caught. For the Bukusu, another ceremony was prepared later on at which paternal and maternal uncles , real or classificatory, came to admonish the novices along the same lines. This was done after the novices were cured but before the final ceremony of coming out of seclusion.

The DC/NN3/1/1 reckons that among the Sabaot as well as some of the Bukusu and Tachoni clans, the closing ceremony consisted of a secret ritual. For the Sabaot, the boys were taught from the bush where they were given information on all animals and lectured on moral values such as the avoidance of stealing, lying and adultery. Whatever that happens in the bush is a confidential and top secret affair known only to instructors and the novices. The following day, an open ritual inducted both male and female initiates into the world of regular affairs and established their age-set membership

2.5.1 Community Methods of Disseminating Indigenous Knowledge

One of the outstanding features of IK is that it is basically local, oral and mostly undocumented. IK is more practical than theoretical, but also very functional and therefore discovered with time. The discovery is usually through trial and error, intimate understanding of the environment in a given culture and accumulation of generation wise intellectual reasoning of day to day life experiences (Rajsekharan, 1992). Indigenous communities preserve and transmit knowledge using techniques such as oral storytelling and experimental instruction. (Tenya, 2015). Story telling was widely used as a form of imparting knowledge. The young would be told stories which were supplemented by songs referring to community's history, migrations, wars, famines and good harvests among other lessons. Though part of recreation, storytelling was a very important means of disseminating indigenous. Knowledge. Stories were and are narrated to young boys and girls by old men and women who were considered skilled in life and had the requisite experience and knowhow to

share with the youth. . Young boys and girls met in the evening at their grand parents' houses, near the fire places to be told stories while waiting for supper. Some stories were based on boy-girl relationships, myths, folk tales, wild animals, ghosts and other super natural powers. The importance of the stories was to teach certain lessons, certain messages, inculcate a sense of reasoning, analyzing situations, problem solving, character building among others. For example the popular story told and retold is that of a hyena and a rabbit, in which the hyena is portrayed as a hungry, greedy, unreasonable and foolish animal while the reverse is said of the rabbit.(Republic of Kenya, 1990).

Proverbs were also used to teach young boys and girls to discover for themselves the hidden meanings of the proverbs. Other modes of IK dissemination worth mentioning are riddles. Riddles were told at night by old men and women as lessons to the young to show what was expected of them, particularly in shaping them to fit in their communities

Olenja (1986) adds that dances were used as teaching aids. Dances varied according to the occasions. For instance dances performed during marriages were different from those performed at the birth of twins or during funerals.. the young ones had to learn how to differentiate between the dances and link them to particular events. Olenja adds that group discussions on matters central to the functioning of the family were used as a way of instructing the children in the responsibilities of the home.

To impart practical and specialized skills, emphasis was laid on work. Skills such as digging, planting and various crafts as related to the economic or subsistence activities of the community were imparted to the youth. The society recognized role specialization such that only certain people specialized in certain skills and crafts depending on their interests. For example the making of salt from plants, grinding stones and blacksmithing were specialized skills acquired through apprenticeship and imitation and solely depended on ones interest. The family IK could also be acquired through inheritance. For instance, son of a rainmaker, magician, sorcerer, brick maker or blacksmith may grow up to acquire these skills under minimum instructions.

Mberia (1986) asserts that language is a vital ingredient in the mobilization of the public for economic and social development for enhancement of peoples' quality of life. In the same breath, language is generally at the heart of culture and indigenous knowledge retention and dissemination. That is why, loss of language is not considered as just the loss of culture, but also identity of a people. For communities which did not have written expression of their indigenous ways, language was the dominant way through which, cultural information was communicated and preserved. On the other hand, language has been the most prominent victim of assault on indigenous language. Western practices that underpins our modern education has seen the disintegration and disappearance of indigenous languages hence knowledge throughout the world. Deliberate state-imposed destruction of indigenous languages, through education system or otherwise, has caused loss of

traditional knowledge systems. This scenario calls for initiatives that focus on preserving and reinstating of indigenous knowledge.

There is however, a paradigm shift in the way knowledge is managed. According to Uriarte (2008), the new paradigm is that knowledge must be shared in order for it to grow. It has been proven that the organization that shares knowledge among its management and staff grows stronger and becomes more competitive. This situation does not exclude West FM which, as an organization must have its knowledge disseminated and shared. However, West FM has gone a notch higher; rather than restrict itself to the business of sharing organizational knowledge, it has embraced indigenous knowledge which it has religiously strived to disseminate to a wider audience.

As a way of fostering IK, many academic institutions have moved to create departments that deal with native studies. The aim of these departments has been to build a new breed of professionals who have new realities about their countries and people. Their curriculum is generally based on the history, politics, culture, tradition and heritage of the indigenous people. Greater interest in IK has led to establishment of indigenous schools (alternative education centres) in some instances to parallel the western education system. These centers strives to improve the academic learning of students from indigenous backgrounds through the use of culturally responsive instruction theory, that is, instruction reflecting the values and practices similar to the traditional roots (Settee, 2007).

It is however noted that the creation of IK departments in academic institutions is a trend prone to difficulties. Settee (2007) argued that IK cannot be taught or learnt in the same manner as the western knowledge because unlike western knowledge which is intellectual in orientation, IK is physical, spiritual, and emotional. One problem of teaching IK in modern institutions is its holistic nature, that is, it covers so many subject areas such that it does not easily fit into modern curriculums setups. These fears are unjustifiable; rather than the many subject coverage being a reason for IK not being taught in institutions of higher learning, it should as a matter of fact be a justification that IK has enough components for teaching as a course, and like any other discipline, IK specialists can develop a curriculum within which to institutionalize the teaching of IK in institutions of higher learning.

Harp (1999) pointed out that in the traditional cultures, the child was taught through modeling, i.e. observation, participation, experience and practice in the performance of the daily skills rather than through verbal instructions. Campbell (2003) adds that the teaching of IK should be two-way, recognizing that the students of IK, possess information, history and truths that need to be validated. It is therefore apparent that academic institutions have an important role to play in the dissemination of IK but are challenged in terms of methodology.

As a way out, institutions may need to borrow from traditional methods of teaching. Amongst these methods, storytelling stands out. Throughout history, indigenous people have used stories to teach people how to conduct themselves well for the good of society. The stories therefore lead to social and cultural transformation as

well as the survival of the communities. Settee (2007) argues that in oral societies, stories are a powerful medium of life instructions and a means of conveying values, which are important links to the past and a means of survival in the future. However, it is a matter of concern that in this day and time, indigenous stories and songs are vanishing at a rapid rate due to lack of clear cultural preservation programs in many societies.

Luckily, in some academic institutions, indigenous knowledge related courses have been established alongside other disciplines. Settee (2007) gives an example of the teaching of Chinese medicine which has become very common in different universities. Through these approaches, the world has realized a critical mass of indigenous knowledge scholars, who have become critical educators and learners. Dei (2000) is however concerned that the scholars in IK have been marginalized in the education system, courtesy of the hegemony of western knowledge and scholars. The literature in these areas is based on indigenous world views and methodologies, such as storytelling and oracy. They cover cultural, linguistic, political discourses and further address the sustainability of IK and its importance in transforming western ways of knowing and practice (Smith, 1999).

Among all the methods of disseminating IK, the use of arts is the oldest and most outstanding. Arts constitute a legitimate source of knowledge that is capable of ensuring cultural continuity. Music in particular has been used to bring societies together in ceremonies, feasts, weddings, births, deaths and other events. It is also

used as a means of passing down values, history and news. Ladner (1996) argues that in modern times, songs have been used to educate people about injustices such as land grabbing, genocide and life on the streets. Modern indigenous music has been used to popularize people's history, radicalize and instill pride and as a medium of teaching that which is not found in other sources.

2.6 Media and Indigenous Knowledge

In their most basic form, media are apparatus that 'come in between' or mediate between two or more parties. (McQuail, 2005). According to the Business Directory retrieved from : <http://www.businessdictionary.com/definition/media.html#ixzz3jAV9qjMN>, media is the communication channels through which news, entertainment, education, data, or promotional messages are disseminated. It comprises broadcasting and narrowcasting medium such as newspapers, magazines, TV, radio, billboards, direct mail, telephone, fax, and internet. Media are for this matter the vehicles through which people receive and disseminate information.

For the purpose of this study, the media to be focused on is the broadcasting media embodied in the West FM Radio Station and its contribution in the sharing of Indigenous knowledge. In the 21st century indigenous information is transmitted mainly through indigenous communication channels: indigenous organizations, folk media, traditional education, and so forth (Sharma, 2014). Settee (2007) argues that the popular culture as displayed on television, radio, videogames and computers play a critical role in the domination of indigenous people. Attempts to disseminate IK are

evident through media initiatives through TV and radio stations. The programmes that they air are usually in indigenous languages and cover a variety of issues including youth, environment, music, and linguistics, social, artistic, cultural and political issues. In countries like Nigeria, native theatres give audience authority and recognition of their history. Most of what they provide cannot be taught elsewhere. Therefore FM stations can be used to effectively challenge main stream media and give the dominant society an understanding of the rich and varied culture of indigenous people.

However, through the shift from the traditional distribution paradigm to the interactive paradigm and then to the communication paradigm exists an opportunity for the local people to create and share their traditional knowledge (Kuhlen, 2003). Giroux (2000) argued that radios have been used to communicate values. They use programmes which look at indigenous cultures. Such programmes include dialogue in radio, telephone calls and entertainment programmes based on indigenous knowledge. Other programmes like radio drama provide teaching methods based on an understanding of one's culture and then acting it out. Today, technology has made it easier and faster to communicate and to reach mass audiences that share neither space nor time. Indeed, the use of technology has enhanced the rate at which even traditional media like television and radio operate.

The role of media in disseminating IK cannot be complete without mentioning albeit briefly its 'siblings' ICTs and social media. According to Turban, et al (2007)

Knowledge management systems (KMS) are the ICTs that make knowledge management possible in organizations. Therefore KMS are ICT tools such as the internet, intranet, extranet among others that facilitate the creation, storage, transfer and application of knowledge. Sharma (200) adds that Information and Communications Technologies (ICTs) are electronic technologies for collecting, storing, processing, and communicating information. Exchange of Indigenous Knowledge through the Information and Communication Technology (ICT) is the exception rather than the rule in the direct exchange of indigenous knowledge within and between communities.

Indeed, whereas radio stations are able to disseminate real time indigenous knowledge, the same can be captured and stored in the ICT enabled environment for future replay or review. According to Sharmar (2014), exchange of IK involves essentially six steps: Technical and social analysis to recognize and identify IK since it is embedded in a mix of technologies and cultural values; validation (assessment of IK's significance and relevance in solving problems and how well it can be transferred); recording and documentation: from master to apprentice, from parent to child, etc.). The import of these six steps as postulated by Sharma is that not all forms of IK are harvested and disseminated. They have to undergo some processes albeit traditional to measure their worth, i.e. to determine if they meet the minimum threshold for sharing and dissemination. Only after they are acceptable as of added value to society can they be organized and disseminated.

In some cases, modern tools could be used, while in other circumstances it may be appropriate to rely on more traditional methods (e.g., taped narration, drawings); Key among the steps is storage: in retrievable repositories: Storage is not limited to text document or electronic format; it could include tapes, films, storytelling, gene banks, etc. Transfer: This step goes beyond merely conveying the knowledge to the recipient; it also includes the testing of the knowledge in the new environment. Pilots are the most appropriate approach in this step; and dissemination to a wider community adds the developmental dimension to the exchange of knowledge and could promote a wider and deeper ripple impact of the knowledge transfer. Exchange of IK is the ideal outcome of a successful transfer and dissemination. This is essentially a learning process whereby the community where an IK practice originates, the agent who transmits the practice, and the community that adopts and adapts the practice all learn during the process.

On the other hand, social media technologies allow individuals and communities to create and share user-generated content (Kietzmann et al, 2011). The Internet World Stats (2014) notes that social media such as YouTube, Facebook, Google Docs, and Twitter can be used to create, access, and share information or skills within social and geographic communities in East Africa. YouTube allows users to upload, share, and view videos. YouTube is multimedia-based and therefore can be employed by literate as well as illiterate users. Recorded videos of indigenous knowledge (music, dance, agricultural practice) can be uploaded on YouTube and viewed by local communities in an information setting. On the other hand, face book allows

individuals to post videos, share interests, make connections, and join their invisible colleges (groups with similar interests.) where sharing of knowledge can be done.

Another component worth mentioning as regards media is the mobile telephony which has significantly influenced information and knowledge sharing among the Kenyan populace. The increasing penetration of mobile phones in Kenya has led to a rise in the use of the gadgets for information and knowledge sharing purposes. Such services have potential to reduce information asymmetry and empower farmers with weather, market and other relevant information (Crandall 2012). Kenya's high mobile penetration rate and subscription number indicates that mobile technology is not only a promising business opportunity, but also an indispensable tool for empowering the country's citizens, especially its rural poor. It is thus noteworthy that mobile technology is not only being leveraged in disseminating knowledge for increased agricultural productivity but has greatly contributed to the fight against the morass of poverty.

Crandall (2012) adds that voice is more used and understood than text messaging. Rural households use phones for personal, community, and work/farm-related activities. Most farmers, regardless of age, sex, or location, tend to prefer making calls to using SMS. Farmers often prefer calling to SMS because calls consume less money to get a final response (there is much back and forth with SMS). "SMS is cumbersome and takes a lot of time and energy so it is easier to call" Social media and mobile technologies are thus crucial tools and infrastructure for disseminating

IK. However, the concern of this study is how FM radio stations disseminate IK to their audience for purposes of development.

2.7 Indigenous Knowledge and Socio-Economic Development

According to Agrawal (1995), IK has become a new area of attraction in social economic development as demonstrated by the interest that the field has attracted among researchers, donors, writers and scholarly debates. Initially seen as being inferior, inefficient and an obstacle to development, contemporary thinking has recognized the value that IK hold for sustainable development. The increased focus on IK represents a paradigm shift from preoccupation with scientific knowledge, which has not altered the lives of the majority of the poor over the last decade. This in itself is a significant indicator that in social economic development, Indigenous Knowledge cannot be ignored.

The use of indigenous knowledge implies change that comes from within local communities reflecting the local community's confidence in indigenous knowledge as a tool for socio economic progress (Tenya, 2015). The United Nations Environment Programme (2006) asserted that the value of indigenous knowledge lies in its ability to deliver social and economic goods; [and] that certain traditional practices if popularized, and integrated with modern knowledge systems, can help to alleviate poverty (Steiner, 2008). In other words, IK is a powerful resource of rural peoples social economic wellbeing and therefore a key element in the fight against poverty and social exclusion for many rural communities worldwide.

According to the World Bank (1998) Indigenous Knowledge Systems (IKS) has been leveraged in social development severally and variously. Examples include West Africa, where local languages are used as a means of instruction to improve education in primary schools; provision of primary health care to help reduce child mortality in Eritrea and maternal mortality in Uganda; empowering women in Senegal to facilitate the eradication of female circumcision; helping communities in Mozambique to manage coastal natural resources; and using traditional medicinal plants in Zimbabwe to treat malaria. Thus, Indigenous Knowledge is now at the forefront of the international social development agenda.

Steiner and Oviedo (2004), argues that IK has helped to bring about great fortunes to the biotechnology industry by producing medicines for global markets from plants and animals. Ironically, the traditional healers who are behind their discovery never receive any compensation.

Mkapa (2004) argued that IK has contributed to building solidarity in communities affected by globalization and shielding them from its negative impacts. On the other hand, lessons from indigenous knowledge initiatives indicate that IK provide communities with development ownership, improved local capacity, self-reliance and empowerment. To this extent, building on IK will help communities to substantially reduce the risk of failure of development projects and save money from government, donors and multilateral organizations. Therefore those who bear IK as individuals and communities are great partners in development. The 1998–1999

World Development Report noted that knowledge, not capital, is the key to sustainable economic and social development (World Bank, 1999). Mundy and Compton (1991) adds that indigenous technical knowledge is a new focus in development circles and that growing numbers of scientists and organizations recognize that it offers affordable and locally adaptable solutions to development problems. For example, in the Upper Zambezi Valley in South Africa, traditionally, the killing of animals was restricted to the male and old ones only to ensure the continued population growth of their animals, a practice that augurs well for flourishing of tourism industry. This approach, albeit indigenous, is not different from the current culling practices in Zimbabwe for the sustainable harvesting of wildlife.

Leautie (2004) and Briggs (2005) concurred that by deploying IK, communities can achieve economic and social progress; that the capacity enhancement is at the core of IK dissemination as it helps communities to realize their development potential since communities already have knowledge about their practices. Chambers (1983) argued that IK enables an inter-disciplinary approach to development that helps to empower local communities and build their capacity to effect change. This involves learning about bio-physical environment, the social fabric, the local economy, culture and history as well as the knowledge embedded in the community.

In Agriculture, IK has become valuable to those who depend on it; IK has made great contribution to crop production by peasants. Anyita (2010), is of the view that

small scale resource farmers have good reasons for sticking to their local knowledge and farming practices because modern techniques can only be successful and sustainable, if IK is taken into consideration... Generally, IK is a multidisciplinary subject with different domains. Gupta (2012) mentions these areas as agriculture and post-agricultural practices; animal husbandry and poultry; ethno-fishery; hunting and gathering; artisan; disease treatment, ethno-medicine and folk remedy; traditional economic and political systems, handicrafts, tools and techniques, nutrition, health care practices and bio-medicines, psycho-social care, natural and biological resources, management of environmental and bio-diversity resources, disaster mitigation, human resource management, saving and lending, poverty alleviation and community development as well as education and communication.

According to Aluma (2004), agriculture constitutes the largest collection of indigenous knowledge worldwide. Research and the problems that bedevil the agriculture sector today indicate that the modern agriculture associated with mechanization, fertilizers and phytomedicines may not be sustainable after all. To this extent, researchers have focused their attention to re-introducing indigenous species of domestic crops and livestock. In this connection, the author further pointed out that national research institutions are doing a lot of studies in development and commercialization of IK based practices. This is not in any way meant to dispute the significance of modern agriculture and the green revolution feeding the burgeoning world population. The two systems should complement each other so that where there is a shortage of modern staples, communities can resort to

traditional plants and crops. It is thus a challenge for the players including media stations to raise awareness to communities over such practices, so that this underutilized potential can be tapped.

2.8 Challenges Encountered in Disseminating Indigenous Knowledge

According to Barnhart and Kawagley (1995), one of the major challenges facing IK is inadequate people with expertise and research experience to bring a balance to the indigenous knowledge enterprise. Okore (2009) avers that dissemination of IK is faced with challenges such as intellectual property rights, funding, and reluctance of indigenous people to share their knowledge and, competition within existing community structures for indigenous knowledge among others.

Tenya (2015) adds that infrastructure, technology and inadequate training are major challenges of managing IK in Kenya. To this, Anand (2009) adds that the main challenge of managing IK particularly agriculture indigenous knowledge (AIK) is the system of communication and or dissemination in which IK is communicated through family members from the older to the younger generation. In the process the knowledge is lost because of cultural homogenization and passing on of the experts and therefore thwarting efforts of organizations such as the West FM which are trying to ensure that such relevant knowledge is consumed by many people more especially the young people. This is because IK is mainly held in people's mind as memories and experiences, consequently difficult to record, codify, transfer and disseminate. In such circumstances, when they pass on, they disappear with all the

IK in their mind. It is important therefore for organizations such as West FM to invest heavily in IK discovery, harnessing and dissemination for availability to posterity.

2.9 Summary and Gap Identification

2.9.1 Summary

This chapter has provided a review of related literature on the study area. It has served to develop an understanding of indigenous knowledge and delved into issues of IK by analyzing IK systems, types of IK and ways of dissemination, importance of IK in development and the role of media in disseminating IK.

2.9.2 Gap Identification

The literature reviewed reveals some missing links. To begin with, there is no comprehensive theoretical framework to underpin the conceptualization of IK management vis-a-vis media stations. Secondly, though various and several studies have been done in the area of knowledge management in general and Indigenous Knowledge in particular, no study on the role of radio stations in disseminating indigenous knowledge in Kenya has been done. According to Maina (2009), there is lack of grassroots level dialogue with knowledge holders. This is the sad reality since community knowledge custodians have not been given the attention and most of them are fast dying out with their wealth of knowledge living a huge gap that may not be substituted by technology that society has embraced. Besides, there is scanty

literature on matters of IK ownership and intellectual property rights in Kenya. This study focused mostly on transmission of IK by radio stations through which related areas as mentioned here were alluded to. Finally, from the review of literature, there is a gap on IK vis avis school, college and university curricular.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

Research methodology refers to philosophies, procedures, methods and techniques adopted in a study to answer research questions (Dawson, 2002). In this chapter the researcher discusses the components of research methodology that guided the study. They encompass research design, location of the study, population, sampling, data collection methods, research instruments and the strategies for data analysis, presentation and interpretation.

3.2. Research Design and Locale

Research design is the conceptual structure with which research is conducted; it constitutes the blue-print for the collection, measurement and analysis of data (Kombo and Tromp, 2006). Kothari (2004) argues that research design should be looked at in terms of whether the study is qualitative or quantitative. From this context, the study applied mixed research design in which both quantitative and qualitative approaches were used for data collection and data analysis. Quantitative methods were used because of their convenience to the respondents in selecting constructs. The method also helped the researcher to collect factual data for the study. Qualitative approach was preferred because it was suitable for obtaining detailed information on respondents' attitudes, opinions, and expectations and therefore enabled the researcher to develop a deeper understanding of dissemination of IK in the West FM setting. In this perspective, listeners' expectations, opinions

and perceptions about the IK dissemination programmes were described. The study made use of descriptive explanations and reported qualitative statements from respondents (respondents were quoted verbatim before explanations were made). In tandem with the objectives, the study systematically described the different facets of IK dissemination by the West FM station, This study relied much on the experiences of people who directly deal with IK at West FM Radio, including editors, journalists, community knowledge custodians and listeners to seek clarification for the identified constructs. Their opinions, suggestions, and attitude towards the media in disseminating IK was sought or observed, interpreted and described by the researcher. Qualitative data was analyzed through thematic content analysis.

The study was carried out in the West FM Radio coverage area which comprises the Western and North Western topographies (the former Western province and the North Rift regions) in which West FM commands huge following in terms of listenership and audience. The selection of West FM and the North Rift and Western Kenya for the study was purposive, because West FM is the oldest radio station to engage in the business of IK dissemination. Likewise the North Western and Western topographies were purposively selected due to the penetration of the West FM radio services and the fact that the radio station draws most of its audience from these regions.

3.3 Population

Mugenda & Mugenda (2003) defines research population as the complete set of individuals, cases or objects with some common observable characteristics. Population therefore refers to the larger target group to which the research focused on. The target population comprised staff of West FM Radio station, opinion leaders, audience and community knowledge custodians drawn from Western and the North Western Kenya (coverage area of West FM Radio Station). West FM Radio station had 44 staff members at the time of the study all of whom were used as subjects of the study. The audience was drawn from the coverage area. According to Kenya Audience Research Foundation (KARF) (2014), West FM Radio station had a daily active listenership reach of 2000 people in the Western Topography and 1000 in the North Western Topography and over 3,000,000 audiences worldwide. Since the study area was limited to the former Western Province and the North Rift Region of Kenya, the target population for this study therefore, was 3000 active audience as provided for in listenership statistics at West FM Radio Station and as corroborated by KARF (2014) and 44 staff members totaling to 3044 respondents.

3.4 Sampling Techniques and Sample Size Determination

3.4.1 Sampling Techniques

Sampling techniques are methods that are used to select a sample from the population by reducing it to a more manageable size (Saunders, Lewis & Thornhill, 2009). To Orodho and Kombo (2002), it is a process of selecting a number of

individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group.

On the other hand, Kombo and Tromp (2006) states that sampling method is the procedure a researcher uses to gather people, places or things to study. In this study, purposive, stratified and simple random sampling techniques were used. Because of strategic considerations, the researcher purposively selected all the 44 staff members of West FM Radio station. Snowballing was applied to identify 42 community knowledge custodians using cultural talk show hosts and/presenters. Knowledge custodians consisted of community elders and opinion leaders (two from each of the 21 ethnic communities under study topography). The study also made use of stratified sampling. Stratified sampling is a way of ensuring that particular strata or categories of individuals are represented in the sampling process (Fox, Hunn, & Marthers, 2009; Cochran, 2003). Stratified sampling strategy ensured a more representative sample with less variation and guaranteed that particular strata or categories of individuals were represented in the sample and in the process reduced random sampling error. The study used stratified sampling because its target was twofold: West FM staff and the listenership. However, since the population was not homogeneous, systematic random sampling was applied for the listenership stratum.

3.4.2 Sample Size Determination

All 44 West FM staff members were selected for the study. They included two content managers, two programme managers, four editors, four cultural talk show presenters, seven journalists distributed across the two topographies under the study

area and other twenty five staff members working throughout the West FM offices established in the coverage topographies. The researcher also interviewed two knowledge custodians who run cultural talk shows at West FM.

The researcher obtained 3000 active audience from the audience/listeners' list available from talk show phone numbers at West FM Radio station and then applied systematic random sampling to identify study participants. The researcher then not only administered questionnaires to 353 respondents but also engaged 42 knowledge custodians (2 from each of the 21 ethnic communities from the study locale) in interviews and unobtrusively observed their participation behavior while taking note of their activities in a notebook and recording both sound and audio behavior using his smart phone for later review. The researcher randomly picked the first item or subject from the population. Then, he selected each n'th subject from the list for the study as illustrated below:

Target population /Sample size = n'th

Target population (3000)/ Sample Size (353) = Interval (9)

Therefore every 9th case was selected starting from point one.

On the other hand, determination of the sample size was based on Krejcie and Morgan Sample Size Determination Table for $\pm 5\%$ precision level and 95% confidence level. (Krejcie and Morgan,1970 and Israel, 2013).

Table 3.1 Sample Size

Target Population	Study population	Sample size
West FM Staff	44	44
Listenership (Western and North Western Topographies)	3000	353
Knowledge Custodians	42	42
Total	3086	459

Source: Krejcie and Morgan (1970), Researcher, (2015)

3.5 Research Instruments

The main instruments used in the study were questionnaires, interview schedules and observation checklists. The questionnaires were mainly administered to the West FM audience while the interview schedules were for the key informants who comprised strategic West FM staff members and IK custodians cum opinion leaders and elders. The construction of these instruments took cognizance of ease of use mainly in capturing and or recording the information or data that the researcher could have missed if he were to rely on other instruments only. The instruments are as explained below:

3.5.1 Questionnaires

One questionnaire with both open ended and closed questions were used as the main instrument of data collection because of its convenience in collecting large volumes of data from a widely distributed population in addition to guaranteeing high degree

of anonymity to respondents. (See Appendix III as attached). Closed ended questions were used to collect quantitative data while open ended questions were used to generate qualitative data. The closed ended questions were convenient to the respondents since they only made choices from the answers provided. Likewise they were used because it was easier to summarize and code the data that was collected. On the other hand, open ended questions enabled the respondents to freely add more data that was not initially factored in the choices given quantitatively. Within this context, questionnaires were distributed using a variety of methods that included courier services, electronic, telephone and face-to-face approaches. Courier sent questionnaires were received by research assistants who subsequently distributed them to the respondents and collected them for the researcher. Since not all respondents were competent in English, each research assistant, where need arose, identified a local literate person for purposes of translation but at a fee. The questionnaire was translated to mother tongue for respondents' ease of understanding. The translators equally translated responses to English for the research assistants who recorded them in their note books for later review by the researcher. Electronic questionnaires were only sent to the respondents whose email addresses were in the address databank of the researcher. They then electronically completed and sent back the questionnaires to the researcher for subsequent coding and analysis.

3.5.2 Interview Schedules

An interview schedule (see Appendix II) was used because it provided opportunity for in depth information and clarification of issues not clearly understood in questionnaires. It also provided interview checklist which ensured that the researcher remained focused on the purpose of the interview. A common interview schedule was applied by the researcher in both face-to-face and telephone interviews to ask a standard set of questions. The responses were recorded for later review. The interview schedule was used to collect factual information in order to classify staff plus knowledge custodians and their circumstances to gather straightforward information relating to dissemination of indigenous knowledge. Of particular interest were their attitude and or/opinions regarding dissemination of IK. This enabled the researcher to gauge their level of satisfaction about IK dissemination.

3.5.3 Observation checklist

As indicated in Appendix IV, observation checklist is a tool and strategy that the researcher employed to monitor specific behavior exhibited by the various staff members, audience, and community IK custodians in the course of dissemination and sharing of indigenous knowledge. The checklist was used because it provided a quick and convenient way to observe and record the events and behavior that were of value to the research. The researcher thus used observation checklist to focus on specific behavior such as communication, listening skills, social skills, reactions among other issues. For instance, the researcher observed that *boda boda* cyclists

had their portable transistor radios blaring loudly when listening to the Lumasaba Programme i.e. the Indigenous Knowledge talk show. He also observed that they counter reacted either amongst themselves or called back to the station to seek clarification or to ask for information on pertinent cultural or community issues. It was also observed that on Saturday and Sunday afternoon, majority of people either carried transistor radios or clustered together under tree canopies listening to the IK talk shows. Others made use of their mobile handsets to listen to the programs. The same was observed in public transport vehicles on Saturday and Sunday afternoons, the radio station frequently listened to was the West FM and the programs listened to were those related to indigenous knowledge. Like their *bodaboda* counterparts, their radios operated with maximum volume to the chagrin of some passengers who were uncomfortable with the loud volumes.

3.5.4 Validity and Reliability Determination

a) Validity

Validity involves the appropriateness, meaningfulness, and usefulness of inferences made by the researcher on the basis of the data collected (Patten, 2004; Wallen & Fraenkel, 2001). Cooper (2003) explains validity as the extent to which a test measures what it intends to measure. To establish validity, the researcher formulated simple and clear questions for ease of understanding. This enhanced understanding; limited misinterpretation and facilitated accurate response to the study. The research instruments were then pre tested in the pilot centre (Nyota FM and its listenership

topography) before being administered to the actual study population. As a radio station, Nyota FM provided a similar sample to that of the actual study. Ten staff members were purposively selected and twenty respondents from the audience were randomly selected to participate in the study. The research instruments were improved upon after establishing that some questions were not well understood due to some 'complex' terminologies as previously used in the instruments. The instruments were reconstructed using simple and clear expressions for ease of understanding. Questions that appeared to have been repeated were removed from the instrument making the instrument standard in terms of length and subject coverage.

b) Reliability

On the other hand, reliability relates to the consistency of the data collected (Wallen & Fraenkel 2001). Saunders, Lewis & Thornhill (2009) adds that reliability is the extent to which data collection techniques or analysis procedures yield consistent findings. Therefore, reliability of data was established through the consistency of results drawn from the pilot centre. The Cronbach's alpha reliability estimate was used to measure the internal consistency of data collected. Cronbach's alpha was used to estimate the proportion of variance that was systematic or consistent in a set of test scores. It can range from 00.0 (if no variance is consistent) to 1.00 (if all variance is consistent) with all values between 00.0 and 1.00 also being possible.

Cronbach (1951) stated that satisfactory value of alpha is required to be more than 0.6 for the scale to be reliable. As shown in table 3.2, the alpha value for this study

was 0.856. Therefore, variables used in this investigation were deemed to have adequate reliability.

Table 3.2: Cronbach's Alpha Reliability

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	.843	5

Source: Researcher (2015)

3.6 Data Collection

In research data collection refers to gathering specific information aimed at proving or refuting some facts and to further the researcher's understanding of the puzzling issue by clarifying facts (Kombo and Tromp, 2006).

The study assumed a quantitative and qualitative case study approach to facilitate exploration of IK dissemination procedures and practices by West FM using a variety of data sources. The approach sought to ensure that the topic under study is well explored and that the essence of the phenomenon is revealed. The study investigated the concept of IK dissemination within the context of FM radio stations in Kenya. According to existing statistics, Kenya has over 100 such radio stations (cck.go.ke 2014). Out of these stations, over which the study was generalized, West FM was selected as a unit (case) of the study. The choice of West FM was based on its broad audience coverage (Western Kenya and the North Western Topographies).

The study relied on multiple data collection techniques comprising both primary and secondary data collection methods. Specifically these methods included piloting, administration of questionnaires, face to face interview, content analysis, telephone interview and observation methods.

3.6.1 Logistical and Ethical Considerations

Since researchers enjoy a number of freedoms and privileges to inquiry, dissemination of findings, changing conventional thoughts and enjoying trust of participants among others, they must recognize that such freedoms come with a lot of responsibilities. Ethics in research is premised on the fact that researchers are genuinely concerned with impacting positively on other peoples' lives and are not motivated by personal gain, in addition to the fact that there are laws which prohibit certain research practices (Mugenda and Mugenda, 2003). Ethics in research is meant to protect the rights and welfare of participants and researchers. This study endeavored to apply all the relevant ethical principles at all levels of the study (research design, sampling, data collection and analysis).

The researcher steered clear of personal prejudice, laws and social norms which would have deviated from what is ethics, sought voluntary and prior consent to participate in the study, avoided asking embarrassing questions which would have otherwise caused psychological harm to respondents, treated respondents not as objects but as persons of the study. The researcher adhered to timekeeping to avoid inconveniencing respondents, treated respondents with respect and worked within

the limitations and the delimitations of the study. More so, respondents were assured of anonymity and confidentiality in the whole exercise. The researcher had requisite documentation to show that the exercise had formal permission. Such documents comprised Graduate school approval letter for research and NACOSTI research permit. Besides, as a matter of intellectual honesty, all sources referred to were appropriately cited and referenced. The researcher, as a matter of knowledge sharing made it clear that the findings of this study are to be shared by all and sundry for purposes of application to relevant areas where they may be of value.

3.6.2 Research Protocol and Itinerary

Upon getting green light from the School of Education, Board of Graduate Studies, the researcher applied for research permit from the National Commission for Science and Technology (NACOSTI). After being cleared to undertake the research by the NACOSTI (refer to the permit attached), the researcher embarked on data collection exercise. He sought permission from West FM management and the various county commissioners and county education offices to undertake the study. After securing permission to conduct the study, the researcher personally interviewed key informants from the West FM station, observed listening behavior of focus groups and engaged the group members on lively discussions regarding west FM and indigenous knowledge. Questionnaires were either distributed by the researcher or his research assistants in far flanked areas of the study locale. Respondents whose e-

mail address and telephone numbers were known to the researcher were engaged through email and telephone conversations to gather data.

3.6.3 Pilot Study

Thabane et al (2010) defines a pilot study as an investigation designed to test the feasibility of methods and procedures for later use on large scale or to search for possible effects and association that may be worth follow up in the subsequent study. Pilot studies are carried out in research so as to identify loopholes in the instruments, variables and respondents dynamics which may have a bearing on the validity and reliability of data. Prior to the study, the researcher undertook a pilot study on 30 respondents randomly sampled from Nyota FM (based in Bungoma County headquarters). The sample possessed similar characteristics with the target population. The pilot study thus gave baseline information for improvement on different aspects of the methodology, particularly in relation to validity and reliability of the instruments. The initial questionnaire appeared to have been complex due to the technical language used. As a result of the difficulty experienced in the completion of the questionnaire during the pilot study, the technical language used in the construction of the questionnaire was simplified for ease of understanding. Besides, some of the questions which appeared to have been repeated making the original questionnaire very long and therefore scaring some respondents to complete were expunged from the revised questionnaire to enable positive attention to the questionnaire for the actual data collection. It was also realized that

the questionnaire as initially constructed elicited yes and no answers only leaving the more significant aspects of the study out. The researcher then reconstructed the questionnaire to the expected caliber for collection of comprehensive data.

3.6.4 Actual Data Collection

Due to the expansive nature of the research locale, the researcher engaged seven research assistants to collect data on his behalf in the various counties of the topographies under study. Prior to embarking on the research, the researcher had a one day meeting with his research assistants in which they were not only paid their field stipend but were also briefed on the itinerary, procedures, and protocol for carrying out the research. The research assistants were also supplied with the research materials such as stationery, the research instruments and equipment. The methodologies emphasized during the meeting were basically on effective administration of questionnaires, conducting of interviews, observation skills, documentary review and content analysis for the purpose of achieving credible research output. The methodologies applied in the research are as explained below:

3.6.5 Interview Method

Interview schedules were used to conduct in depth discussions with the West FM staff, community knowledge custodians, elders and opinion leaders to yield large amounts of data. The researcher engaged them in conversations, questioning and making observation so as to appreciate issues behind the IKM. The conversation

took the form of face to face interview, telephone, social media, and email methods. Telephone, social media and email interviews were widely applied to collect data since they allowed the researcher the convenience of covering a greater geographical area. These methods also offered greater flexibility to the researcher in terms of location and time than any other method by allowing interviews to be arranged without the complicated need for travel arrangements. The researcher was able to record the conversations which were later listened to for content analysis. The researcher used these methods to get views from the audience of West FM. The choice of these methods was based on the geographical distribution of the audience across over five counties extending to Eastern Uganda. Using call-in programmes, by the help of the culture talk show program manager of West FM, the researcher identified respondents who could not be reached physically due to geographical distance and took them through telephone interview, while recording their responses.

3.6.6 Questionnaire Method

A questionnaire is a set of questions for gathering information from individuals.. Questionnaires have the advantage of enabling respondents to give their opinions independently (Patten, 2004; Wallen & Fraenkel, 2001; Cochran, 2003; Nesbary, 2000). Secondly, questionnaires especially those with close ended questions are relatively quick and easy to create, code and interpret. In other words, questionnaires were employed in the study because they are known to most respondents and were less expensive to administer in terms of money and time

especially for this study where respondents were scattered across seven expansive counties. Secondly, despite the fact that some questions elicited multiple responses from the same respondents, questionnaires were preferred because of ease of analysis. In the case of multiple responses, the use of Statistical Package for Social Science (SPSS) version 22 enabled the researcher to convert the responses into labels and assigned them variables that assumed yes or no values to facilitate analysis. Questionnaires also provided the respondents ample time to freely air their views and guaranteed them confidentiality due to their nature of anonymity.

Last but not the least, questionnaires ensured that respondents got adequate time to think through and give thematically relevant responses. Finally, structured questions ensured reliability because each respondent was limited to the same question and answers as constructed by the researcher.

Therefore, the use of questionnaires (organized as per the research objectives) enabled the researcher to contact large numbers of respondents and collect a large volume of data quickly, easily and efficiently. Questionnaires were hand delivered to the west FM staff members but distributed to other respondents through courier services or electronically made available to the audience stratum. Others were distributed and collected by contact persons who doubled as research assistants strategically identified throughout the study area.

In situations where questionnaire responses required clarification, other research instruments of data collection like interview and observation schedules were applied to bridge gaps identified during analysis.

3.6.7 Content Analysis

Neuman (1997) defined content analysis as a technique for gathering and analyzing the content of the text (words, meanings, pictures, symbols, ideas, themes or any message that can be communicated. This method was used to describe the content of different programmes aired by the West FM, so as to determine the treatment of IK as content in the programs run by the station. The researcher thematically coded the responses which were then subjected to analysis before inferences and conclusions were drawn. In this case, the major themes of the study as embodied in the objectives of the study were coded as follows: TIK-Types of Indigenous Knowledge in Western Kenya; IKD-Indigenous Knowledge and Development; DIK-Dissemination of Indigenous Knowledge; RMDIK-Role of Media in Disseminating Indigenous Knowledge; CMDIK- Challenges facing the Media in Disseminating Indigenous Knowledge; and BPFIK – Best Practice Framework for Disseminating Indigenous Knowledge.

3.6.8. Review of Documentary Sources

The researcher reviewed relevant documentary sources to corroborate together background information about the organization and area under study. The review targeted West FM strategic documents such as annual reports, monthly statistics, strategic plans, brochures, and vision and mission statements among others. The documentary sources were also handy for corroborating findings of the study and other authorities' opinions as pointed out in the literature review.

3.6.9 Observation Method

Observation was used in order to capture some additional information that could not have been revealed by questionnaires and interviews. Observation was used to address respondents inaccuracies resulting from exaggerations, memory lapse and lies among others. Guided by research questions and observation checklist, the researcher observed respondents' behavior when listening to IK related programs and systematically recorded the results of those observations. For instance, the researcher observed that many households and even individuals in the study area owned small portable radios that were listened to in the course of their work, business or even relaxation. It was also observed that many public transport vehicles that the researcher boarded while crisscrossing the study area possessed radios tuned to West FM for the IK related programs. The excitement, arguments and counter arguments and call in behavior was also notable among the audience of West FM. Thus, through observations many issues of value not heralded through the formalized study instruments were recorded for later review and analysis.

3.7 Data Analysis

Data analysis is the examination of the data that has been collected in a survey or experiment and making deductions and inferences (Kombo and Tromp, 2006). This process involved organizing and interpreting all the data that were collected from all the respondents in relation to west FM radio indigenous knowledge dissemination programmes. In this study, thematic and explanatory data analysis approach was used to analyze data. The themes were derived from the research objectives and

research questions. Data was analyzed quantitatively and qualitatively. Quantitative data was analyzed using Statistical Package for the Social Sciences Software (SPSS). Descriptive and inferential statistical techniques were used to make inferences and draw conclusions and recommendations. These approaches identified commonalities and differences in data, before focusing on relationships between different parts of the data, thereby seeking to draw descriptive and or explanatory conclusions clustered around themes (Creswell, J. 1998).

According to Patton (2002), qualitative data analysis is different from quantitative data analysis because it is oriented to in-depth, comprehensive understanding in which the analyst is an active participant. As regards qualitative data analysis, the researcher focused on meaning, sensitivity of context rather than universal generalizations and descriptions of phenomena rather than measuring specific variables. Using qualitative approach, data was analyzed along the identified codes, first by coming up with summaries. This method allowed data to be described effectively using each participant's own original subjective frames and expressions before moving onto interpretation. Inferences made from the analysis led the researcher into coming up with conclusions and recommendations of the study. Data was presented in form of tables, charts and graphs.

CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents findings, interpretation, and discussion emanating from the study on the role of the media in disseminating Indigenous Knowledge in Western Kenya. The study focused on the West FM Radio Station's endeavors to disseminate IK in the Western and North Western regions of Kenya which are the main catchment areas for the listenership of West FM respectively. Data analysis assumed both quantitative and qualitative approach since data collection was both quantitative and qualitative. Analysis was guided by the study objectives and research questions of the study. The objectives comprised determining listenership levels of West FM indigenous knowledge programmes; evaluating IK domains and practices in Western Kenya; assessing programmes and tools used by West FM radio for disseminating IK; evaluating IK domains and practices disseminated by West FM radio; establishing contributions of West FM IK programmes to the socio-economic development of local communities; and the challenges encountered in the dissemination of Indigenous Knowledge by West FM. radio

4.2 General and Demographic Information

4.2.1 Return Rate

Out of the 353 questionnaires distributed to gather quantitative data from the audience, 282 questionnaires were returned indicating 80% response rate. To collect qualitative data, the researcher targeted all 44 members of West FM staff but managed to interview 28 who were available as others were reportedly committed to other integral chores of the organization during the interview period. This translates to 64% of the staff members interviewed. The other components of the research

participants entailed 42 knowledge custodians i.e. two participants from each of the 21 indigenous communities of Western Kenya consisting of 18 Luyia sub tribes, the Sabaots, Iteso, the Nandi and Pokot and other ethnic communities that have settled in the region. Through emissaries, the researcher was able to make successful appointments with each of them for interview sessions at their convenience. The researcher also made use of observations on significant groups in the study area such as motorcycle *bodaboda* operators, and touts.

In a nutshell, out of the total population of 3086 respondents, 352 subjects participated in the study either by completing the questionnaire, being interviewed or being observed. This translates to 89% participation rate. The data gathered was adequate enough to be applied to the research problem or issues under evaluation. The research team experienced some challenges during the research process emanating mainly from the language disconnect. This arose out of the fact that most elders who were richly endowed with community indigenous knowledge could only express the same effectively in their indigenous languages. This situation complicated matters for the research team which had initially not factored this aspect in its research plan. To address this problem, for each of the county where data was being collected, a translator was identified to translate the questionnaires into the local dialects and indigenous issues into English or Kiswahili for effective communication but at a cost.

4.2.2 Listenership Levels.

The listenership of West FM is a key variable to appreciating the penetration, perception and reception of the IK programmes of West FM radio. The levels were underpinned by demographic characteristics such as the age of respondents, gender participation and inter-county distribution of indigeneous knowledge programmes.

4.2.3 Demographic Data

The study focused on media in Kenya but with a bias on West FM Radio station in Western Kenya. The location zeroed on were the four counties of the former Western Province namely Bungoma, Kakamega, Vihiga, and Busia and the North Rift also known as the North Western topography comprising Uasin Gishu, Trans-Nzoia and West Pokot.

As per objective one of the study, the researcher wanted to establish the listenership levels to West FM IK programmes. The constructs used to determine the levels comprised age of respondents, gender participation in the West FM live broadcasts, number of listeners per county, and duration listened to the programmes as elaborated below:

4.2.4 Age of Respondents

The researcher sought to understand the age range of his respondents and educational levels in order to be able to conceptualize age and education level related attitudes

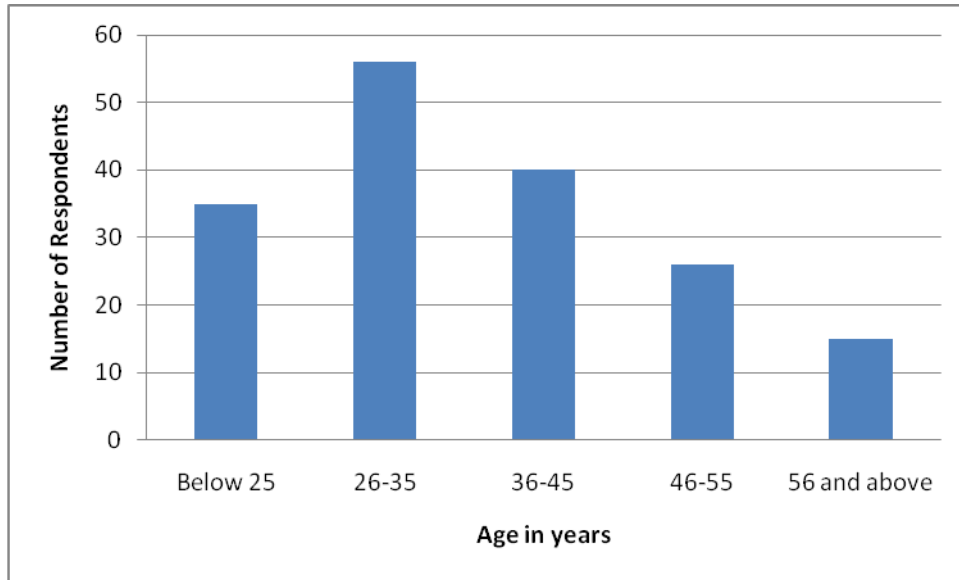
towards indigenous knowledge. Going by the behavior patterns of response (figure 4.1), the highest percentage (32%) was for the respondents aged between 26 and 35 years followed closely by those between ages 36 and 45 at 23%, most of whom had a minimum level of secondary school education. From this, it was clear that the IK related programs commands the highest percentage of listenership from the youth constituency. This is because most of the youth who fail to secure formal employment engages themselves either in self or vocational employment. This category of audience blend their work with listening to IK programs from the station either by use of their transistor FM radios or mobile telephony unlike the elderly who spent time chatting with colleagues in market places to while away time or in beer parties where the mode of entertainment is traditional music, an equally important component of IK. The other sizeable percentage of respondents (20%) was made up of those aged 25 years and below, mostly those in colleges and universities. The second least category of the respondents (15%) was aged between 46 and 55 years. The least category of respondents (0.9%) was aged 56 years and above as illustrated in figure 4.1. This group consisted of elderly audience most of whom doubled as authorities in specific fields of IK. The group's composition was made up of both those who had formal education and those whose education and or knowledge was experiential and intuitive. It is important to point out that whereas most respondents were made up of the youthful constituency, their role in the business of indigenous knowledge was more of learning than to inform or disseminate the same. On the contrary, the elderly who comprised the least number of the respondents and

especially those interviewed are credited with the mastery of IK and therefore were best placed to inform the rest of society on matters of indigenous knowledge. From this study, the perception of indigenous knowledge varied as per age categories and educational levels.

Interestingly the youth listenership constituency age bracket was in sync with that of the West FM Radio employees as informed by interviews between the researcher and the West FM Radio staff. This group ranges between 25 and 40 years of age. Most of the staff members interviewed were either in the management, editorial or content management positions. However, in regard to the study theme, the researcher conducted in depth interviews only with those in charge of IK programmes and content management who reliably had been in charge of IK programme since its inception in 2007.

From the foregoing, West FM has, through its programmes popularized IK and created curiosity among the youthful constituency of listeners who keenly not only follow but also participate in discourses in IK as opposite to the elderly who utilize their free time talking with colleagues in market places or beer parties in the villages. This aspect is informed by the curiosity to interrogate and appreciate certain indigenous phenomena by the youth. Their curiosity and interest to acquire new knowledge was premised in the fact that IK was a new field which had been ignored by the education system that they have undergone i.e. a system that is western based

and has little regard for traditional knowledge. Therefore, the youth are a fertile constituency for the West FM IK activities.



Source: Field Data (2015)

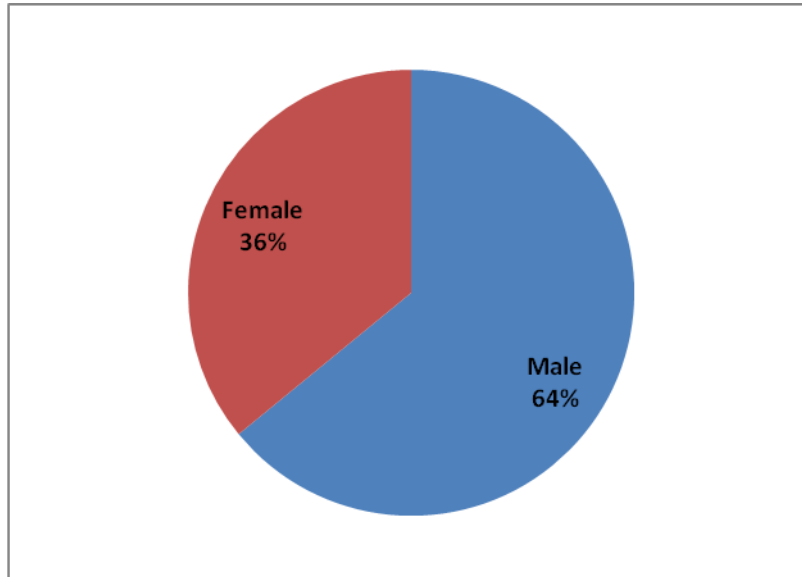
Figure 4.1: Age of Respondents

4.2.5 Gender Participation in West FM IK Live Broadcasts

Figure 4.2 illustrates the gender of respondents. The researcher sought to establish the gender of respondents in order to determine the gender that participates mostly in IK activities particularly by listening to West FM IK programmes. The results showed that more men 64% tuned to the programmes compared to 36% proportion of women who listened to IK programmes. This situation is anchored on the role socialization of the two genders. In most cases, men had little to occupy them in the afternoons as compared to women whose domestic chores only ends with retirement

to bed. They do not therefore have enough time to sit and listen to the programmes.

This does not however mean that they have negative attitude towards IK.



Source: Field Data (2015)

Figure 4.2: Gender Participation of Respondents

The IK custodian (Manyasi, 2015) explains, “*Bakhasi bakali bali mutini, khukario sebenya bibindu biesikhale tawe. Ne babanti kimima kiabwe se kibafukilila babe babekesia be kumwima kwefwe tawe. Sebali bilolelo bilayi tawe Lundi, khukhwama khusimachamacha, kumulimo kwa mayi kubechanga khukhalabanila lulwibulo mulukoba*”. The translation of this voice is that: “*Majority of the women are Christians, therefore they are not interested in traditional matters. Others have questionable moral standing in society and therefore cannot be role models to transmit indigenous knowledge. They are not good role models for IK dissemination and advocacy*” Again, from time immemorial, the place of the woman in society is to

take care of the children and other domestic affairs”). The IK custodian tried to justify the low level participation of women in indigenous knowledge programmes by arguing that women have not shown keen interest in IK and that even if they were interested, some do not have the moral audacity to impart IK because of behavior of some of them that goes against accepted norms of society such as scanty dressing and other anti-social tenets that make them unfit to be role models. As such, only those whose moral standing in society is deemed acceptable are allowed to participate in the programmes. This however does not preclude them from listening to the programmes.

Besides, the current generation of women, out of modernity and Christianity has divorced itself from the ways of society (IK). As indicated in figure 4.2, only 30% of listeners are women, this also tend to make them relegated to the periphery of IK issues. According to Manyasi (2015), the woman who can be entrusted with the teaching of indigenous knowledge is one that has duly fulfilled marriage requirements. He then narrated marriage rites that a married woman must go through before being entrusted with matters of community IK. He elaborates, *“rites such as sitekho, and khutisa (rites that a woman goes through to fully fulfill the conditions for being recognized in marriage) are important. In the indigenous Bukusu setting, for a woman to be fully recognized in marriage, bride prize had to be given to her parents after dowry negotiations. To cement her marriage base, the woman was made to go back to her parents for ‘khutisa’. This entailed a goat being slaughtered and mutton brought to her husband’s community to partake of it and cement the*

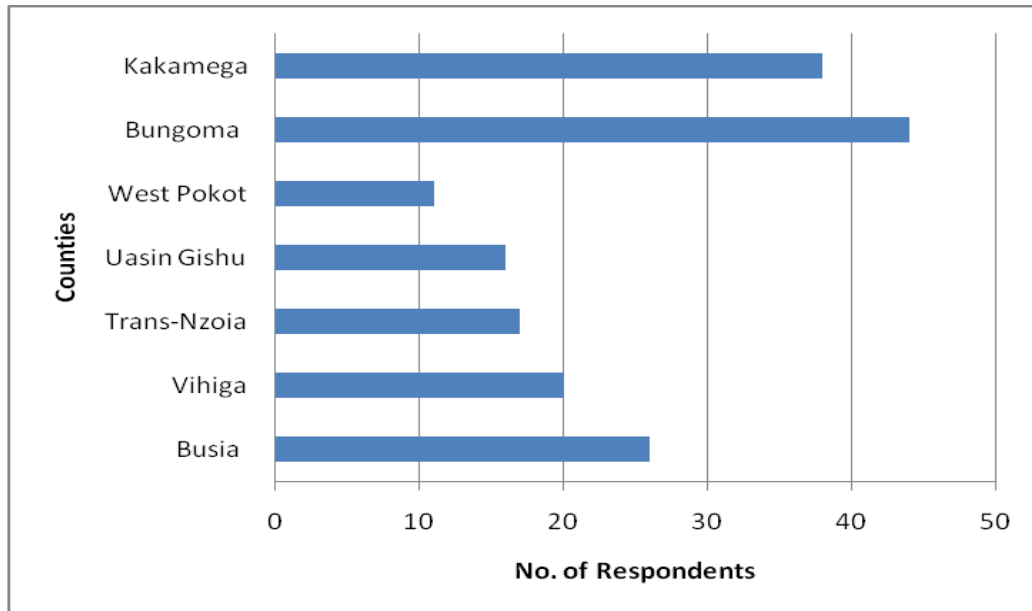
relationship. On the other hand, 'sitekho' was a practice through which a married woman whose father has received dowry from her husband was made to go back to her parents where either a goat was slaughtered, its beef smoked dry, chicken slaughtered and smoked as well or taken live back to her matrimonial home. The woman was also made to carry millet/cassava flour with her back to her husband. Like what happens in christian marriages where the height of a wedding is embodied in cake cutting and eating, upon reaching home, the woman was made to cook ugali; when ready, she would serve the ugali on her husband's palm, who fed her on it hot as it was and the beef that was brought along. The woman also repeated the same, feeding the husband. As they did this rite, they called each other using their surnames showing the sanctity of the practice and hence their marriage. It should be pointed out that the food brought was only eaten by the couple and relatives who were either in-laws or parents. It was a taboo for children and nephews to partake on the sacred meal; in fact, during the rites, the children were evacuated to a relative's place so that they neither witness nor participate in their parents' marital practices.). This therefore becomes a whole mark of a complete wife of the community; one that can undertake community responsibilities without fear or favour. Such practices are regarded with resentment by the contemporary woman and consequently make her less qualified to talk about IK that she does not practice or believe in. Therefore, with such community demands, practices and beliefs many a woman shy away from getting involved in the society's IK issues. As such IK field is predominantly a man's domain in the listenership topographies of West FM.

4.2.6 Inter- County Distribution of Respondents

To gauge the West FM IK penetration patterns in its listenership topographies, it was imperative to establish the response behavior according to counties. The popularity of West FM IK programmes is directly related to the number of listeners across the seven counties of Western Kenya namely Bungoma, Kakamega, Vihiga and Busia, that forms Western topography. On the other hand, Trans-Nzoia, Uasin Gishu and West Pokot are counties within the North Western topography that the radio station commands some following. This is as illustrated in figure 4.3 on number of respondents per county.

The researcher therefore was interested in knowing the distribution of respondents and consequently penetration levels of West FM IK programmes in the said topographies. As per figure 4.3, the county with the majority of listeners of the West FM IK programmes is Bungoma at 51%, followed by Kakamega at 22%. The third county where West FM commands high number of listeners (21%) is Busia. Vihiga, though in comparison with the North Western topography has a higher percentage of listeners, is the least county with 11% of listeners of West FM IK programme in the Western topography. Trans-Nzoia registered 10%, Uasin Gishu 10% while West Pokot had a paltry 7% of those who listened to West FM IK programmes. The reason behind this low pattern is probably the medium of IK communication which is predominantly the Luyia (Bukusu dialect) that is mostly used in Bungoma and can also be understood albeit on a low scale by other Luyia speaking peoples distributed across the two listenership topographies. However, Eastern Uganda which has big

pockets of Luyia speaking ethnic communities such as the Bagishu, Bakatiano and others has embraced the West FM IK programme because they are culturally and linguistically interrelated with their counterparts in Kenya



Source: Field Data (2015)

Figure 4.3: Number of Listeners per County

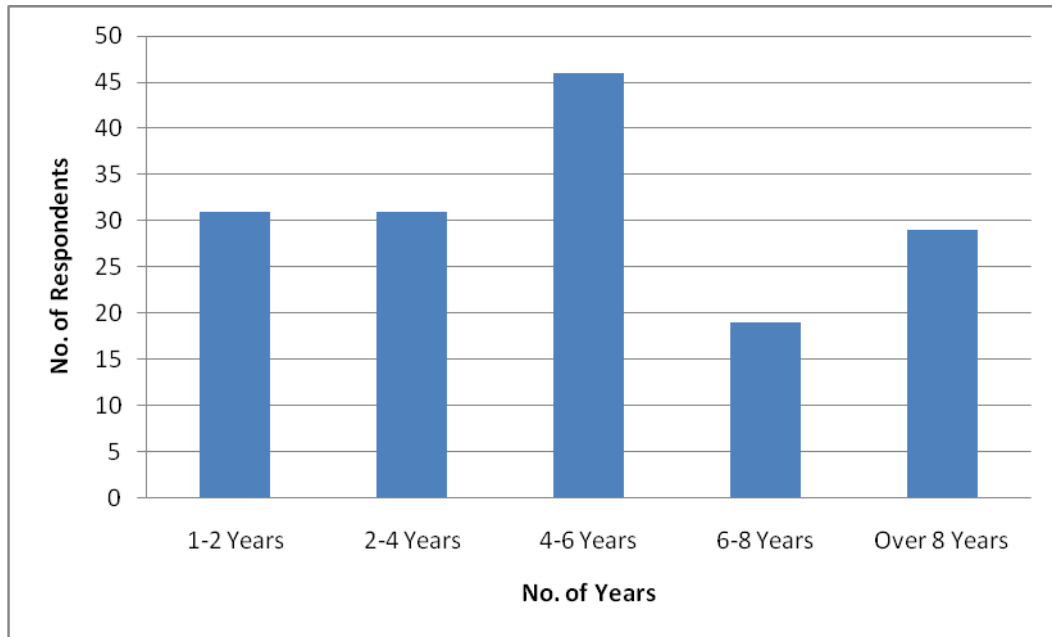
It is also important to point out that Eastern Uganda which has big pockets of Luyia speaking ethnic communities such as the Bamasaba, Bagishu, Bakatiano and others has embraced the West FM IK programme because they are culturally and linguistically interrelated with their counterparts in Kenya. Omuchuma (2015) corroborates, *"Kumwinda kwa nakhalondo yefwe ya West FM kucha paka embale, Busia, kakamega, Vihiga, Ebupokoti nende mu64, Eburwa"*

The literal translation is that *"our radio station (Nakhalondo yefwe) commands listenership stretches from Eastern Uganda in Mbale through Busia, Kakamega,*

Vihiga, Bungoma, Trans-Nzoia, West Pokot (Ebupokot) and Eldoret (Mu64,Eburwa)”

4.2.7 Audience and Duration Listened to West FM

The researcher sought to find out the period for which the respondents had been listening to West FM IK programmes. This was meant to enable the researcher understand their interest and commitment to the IK programmes. A significant number of the respondents (16%) had been listening to the programme for over 8 years and continues to keenly follow the programmes. The majority of the respondents (24%) had listened to the programmes for between 4 and 6 years. This group comprised mostly the youth in self employment who blend their daily chores with the IK programmes which not only seem to teach, caution, and warn them about life but also entertains them by way of music and drama though audio in nature. Another badge of respondents (11%) are consistent listeners that have been listening to the programmes for a duration of between 6 and 8 years. The last two categories of listeners comprises 18% of those who have listned to West FM IK programmes for between 1and 2 years and 18% of those who have listened to the programmes for the last 2 to 4 years respectively. This is as reflected in figure 4.4 This pattern of audience and duriation distribution shows that the audience are committed to West FM IK programmes since they have consistently listned to the programmes since their inception. It is also encouraging to note that the station continues to attract new listeners who have subscribed their commitment to the station.



Source: Field Data (2015)

Figure 4.4: Period Listened to West FM IK Programmes

Similarly, most of the staff interviewed had been working for the station nearly for the last five years and therefore though in their youthful stages, they have enough experience as far as West FM IK programmes are concerned. Likewise, it is not by default that the bulk of listenership constituency is the youth, the reason behind this aspect is their curiosity to know what they did not learn from their formal learning environment. One staff member, Omutulumeti (2015), in confirmation of this fact states, “this thirst for traditional knowledge indirectly contributes to the realization of the station’s objective of holistic socialization, development and upbringing of morally upright youths and therefore constructive members of society. The commitment that the audience have had in the programmes have made the radio station to unrelent in its resolve to have value addition in the community. This is why

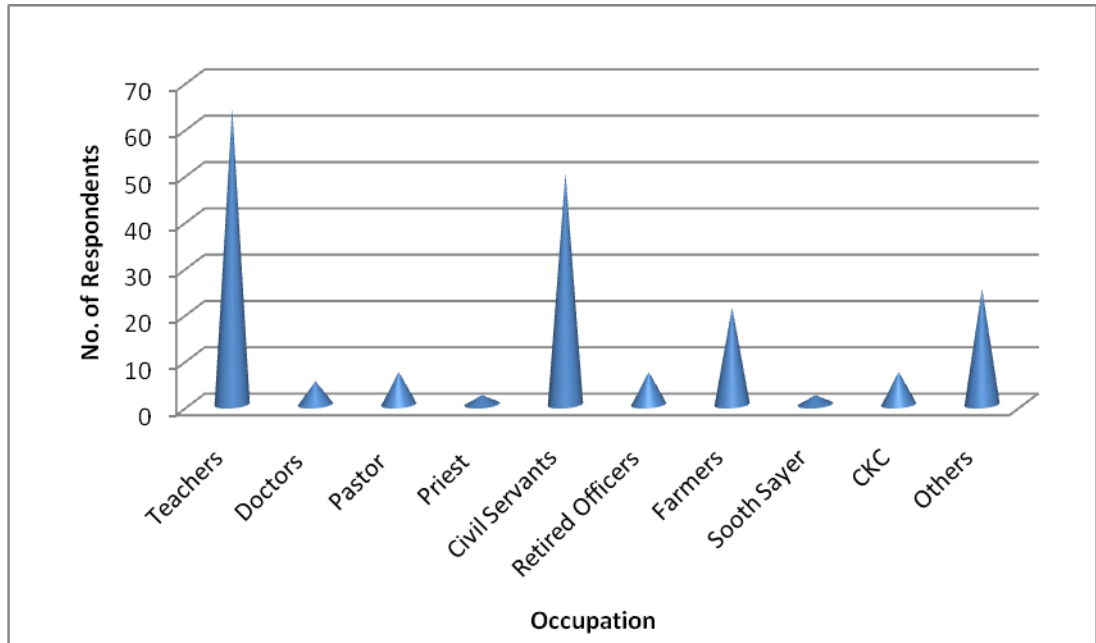
most of the employees including me are below 40 years". The station thus enjoys the support of an already willing category of listeners that unconditionally subscribes to it.

4.2.8 Respondents' Occupation

Since occupation was one of the criteria used for sampling respondents, it was important for the researcher to map out the various designations of his respondents in order to know how IK is perceived by the different professional groups. The researcher worked on the assumption that the more the responses by a given professional group, the higher the appreciation of IK as an alternative source of knowledge besides the formal knowledge. From the response behavior, the bulk of the respondents (34%) were drawn from the teaching fraternity followed by civil servants (26%). This could be due to the fact that more teachers and civil servants were available in the rural areas covered by this study. The second positive component of respondents included others category (11%) and farmers at 5%. The others comprised people in business environment, traditional functions and even cultural fetes. It is informative to note that the custodians of IK are farmers, landless labourers, and cattle keepers among others whom West FM has to engage not only to harness but also disseminate and share IK (Tenya, 2015). According to Manyasi (2015), groups such as farming communities and farm workers have the knowhow of which crops to plant which season and where to plant. They are also aware of the natural phenomena and intervention measures if need be. Such groups will always apply their experiential knowledge before resorting to the western knowledge. For

instance, it is not uncommon to find farmers applying indigenous farming practices such as crop rotation, leaving land fallow to increase its fertility, applying composite manure among other practices. They thus have a high level mastery of indigenous agricultural practices.

Finally, the groups with minimal response entailed doctors (3%), pastors (4%), priests (2%), retirees (4%), soothsayers (2%) and community knowledge custodians at 2% respectively. This state of responses is owed to the fact that since doctors are a busy lot on the ground, getting ample time to fill questionnaires and or be interviewed was a problem therefore their low response. On the other hand, the busy schedule and spiritual socialization and or faith of priests and pastors could have been a possible impediment to the completion of the questionnaires. For retired officers, they were few on the ground and therefore the number was directly proportional to their ratio in the areas under study. The other least component of the participants of the study were soothsayers. Because soothsaying is a natural gift that is highly specialized, it is a role meant only for those who belong to the sooth saying clan and, those who have met certain societal obligations. It is therefore very thin on the ground; in fact it is threatened with extinction since it comprises aged people. The same case applies to community knowledge custodians who are equally thin on the ground. It is therefore important not only to tap their wealth of experience but to have it appropriately disseminated for continuity and availability for posterity. See figure 4.5 for illustration.



Source: Field Data (2015)

Figure 4.5: Respondents Occupation

4.2.9 Listeners' Understanding of Indigenous Knowledge

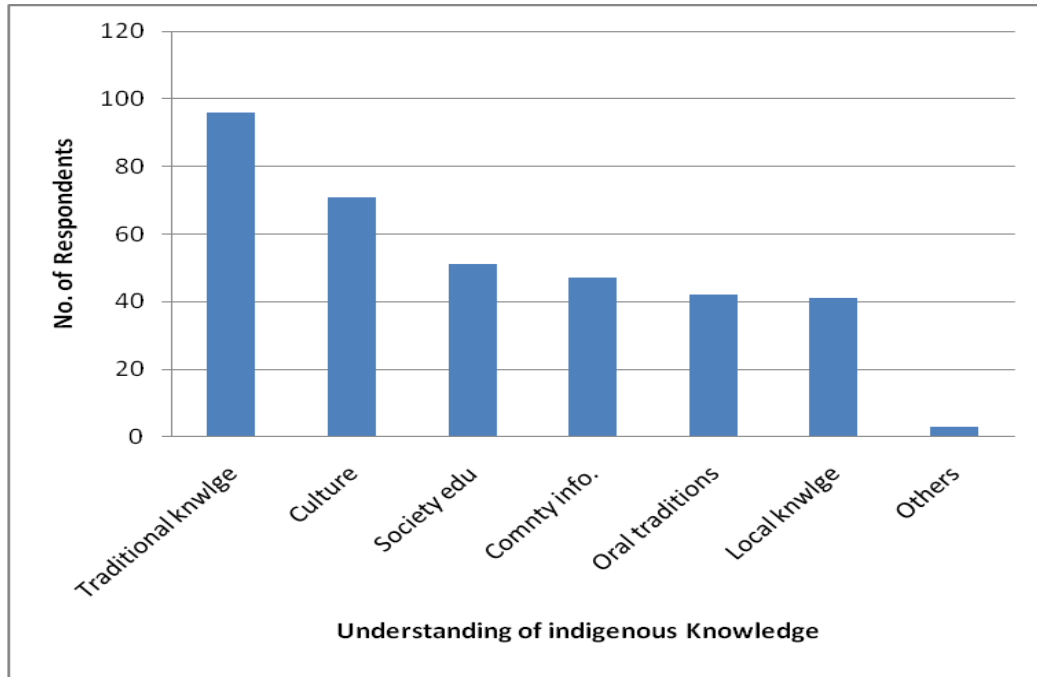
In order to evaluate the IK domains and practices, it was plausible to determine the understanding of IK by the peoples of Western Kenya. This was the basis upon which IK types or systems in Western Kenya could equally be appreciated and unpackaged by the researcher.

That IK is differently understood by the people of Western Kenya is not in doubt. IK is variously and severally understood as traditional knowledge, culture, society education, community information, oral traditions, local knowledge among other adjectives and phraseologies ascribed to it. Out of the total subjects interviewed, the majority (57%) of the respondents understood IK as traditional knowledge, slightly over a quarter (38%) equated it to culture, 27% of the respondents stated that IK is

the society based education, 24% related IK to community information while 23% equated IK to oral traditions and 22% to local knowledge respectively. The others category was 3%.

These perceptions are no different from what IK scholars have posited. For example, Muhandu (2005) looked at IK as local knowledge related to a complete body of knowledge, knowhow and practices transmitted and developed by people, generally in rural areas, who have extended histories of interaction with the rural environment. He adds that the sets of understandings, interpretations and meanings are part of a cultural complex that encompasses language, naming and classification systems, practices for using resources, rituals, spirituality and worldview. From the several varying responses given, it is indicative to note that at least people in the West FM listenership topographies understand what indigenous knowledge is all about.

It is also important to note that the majority of those who equated IK with culture and the society's education were either the elderly, the community IK custodians and others whose formal education though insignificant, are greatly knowledgeable in matters of indigenous or traditional education. On the other hand, the number of respondents was higher for those who perceived IK as either oral traditions,, traditional knowledge, community information or local knowledge . The varying understanding of IK in Western Kenya is as represented in figure 4.6.



Source: Field Data (2015)

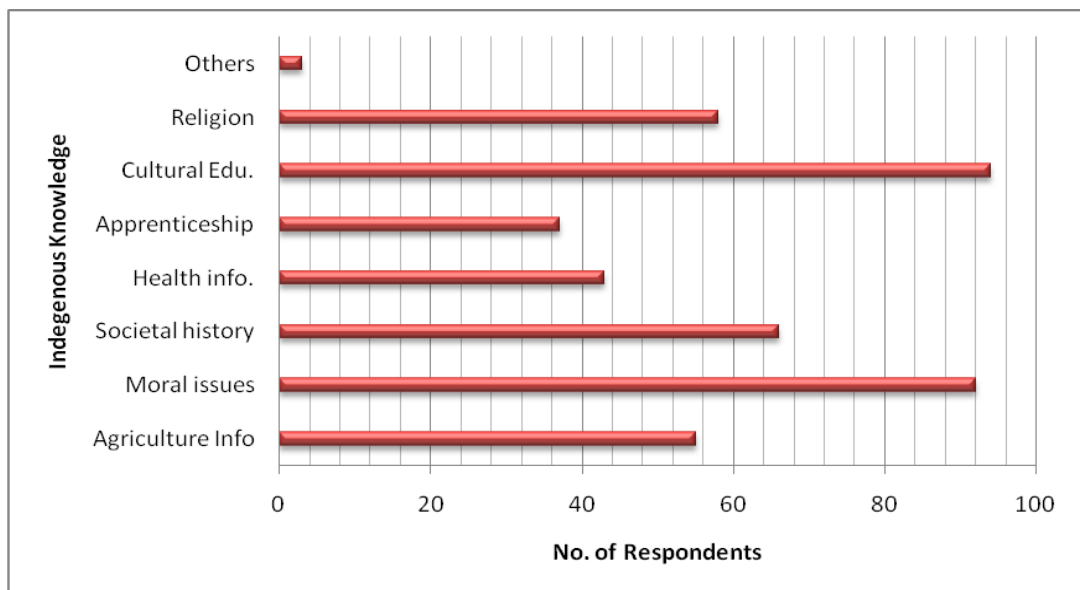
Figure 4.6: Listeners’ Understanding of Indigenous Knowledge

On the other hand, in explaining the understanding of IK, the IK custodian at West FM, Omuchuma (2015) quipped, *“Limanya lie simachamacha lili kumwima kwefwe nilio khunyola mukhubirira mungano, chisimo, kiminai, kimiienya, bukhino, mukhukhalabana nende kimilukho kikindi kimikalii”* The translation for this is, *“IK is the community’s culture that is transmitted through the various genres of society such as poetry, sayings, riddles, stories; cultural ceremonies, festivals, rites, performances such as music and dance and activities such as work and sports.”* This explanation is in tandem with the responses elicited from questionnaires.

4.3. Indigenous Knowledge Domains and Practices in Western Kenya

Given the fact that every society has its own homegrown society knowledge which is locally bound, the study sought to unpackage the different types of knowledge

domains as practiced in Western Kenya. The respondents were asked to state aspects of life that are embedded in the Western Kenya forms of Indigenous Knowledge. There are various systems and practices raised that underpin indigenous knowledge in western Kenya. The following was the order of the responses: 55% of the respondents suggested cultural education, 54% mentioned moral issues, 30% talked about societal history, 33% cited religion, 32% pointed out agricultural information, 24% indicated health information, 21% stated apprenticeship while 2% talked about other aspects of life as being systems and practices of IK in western Kenya. This is as illustrated in figure.4.7 below



Source: Field Data (2015)

Figure 4.7: Indigenous Knowledge Domains and Practices in Western Kenya

From the response given above, it is almost difficult to draw a line between cultural education, moral issues and societal history because of crosscutting issues that makes them look similar. The qualitative data over IK practices generated from the

interview with one of the key informant, who is both a secondary school teacher and an opinion leader well versed in indigenous matters, vindicates the quantitative data above.

The researcher sought to know from one of the key informants about the nature of indigenous knowledge domains and practices and how they were transmitted to the youth. Sitati (2015), responded, *“kamasoma kesikhale kailishanga khukhusia baraka mungila che bulungi nyo mbo bamenye bulayi limenya lie kumuchuli. Kimima kiekholo, khukhola kimilimo, khukhwisaya Khakaba, khukhupanila lulwibulo, bulimi, bubasi ne bibindi nivyo Baraka bekesibwanga mungano, mumina, mukhukhola kimilimo ne chingila chichindi. Mala mbelela mbo bibindu biakalukhana khubela busomi bwe chinyanaga chino”* The respondent, despite being a high school teacher, chose to respond in mother tongue so that the researcher can be drawn closer to the indigenous setting. The above voice is literally translated as *“indigenous knowledge in the traditional setting aimed at holistic development of morally, socially and spiritually upright individual so that their future can be worthwhile. Even so, I regret that things have changed due to modern education...such education was transmitted orally from generation to generation through different community settings and activities such as rites of passage e.g. birth, naming, circumcision, marriage and death among others.”* Indeed such occasions provide opportunity for people to gather together and not only share meals and drinks but also be able to reflect on community’s ways of life for the benefit of the young who need to develop holistically. Tenya (2015), adds,” the people of

western region of Kenya have a rich body of IK developed over many years. This body of accumulated knowledge plays an important role in agriculture, animal and human health, natural resource management, education, and other activities carried out in the communities.” Sitati (2015), went on to explain the meaning of IK *“The underlying aspects of IK are moral issues that are components of cultural education that is not only meant to equip the youths with valuable life skills but also warn and caution errand or potential deviant members of society.”* Sitati is nostalgic about yesteryears when indigenous practices counted a lot in life. He ends by bemoaning the negatives of modernity and proliferation of Eurocentric culture that has enthralled many aspects of life in the study locale. It is indeed upon this realization that the West FM Radio took the initiative of amplifying the traditional practices and systems to its listeners.

Like for the case of culture and moral issues, the society’s history and religion are also close, because from religion we are able to appreciate the myths that explain the creation of the people, their migrations, culture and settlement. This is equally the case with history that explains the emergency, progress and migrations and settlement of the community. From an interview with the lead IK custodian, much of the history and religion of the people of Western Kenya is mythological. As he reflects on the origins and the genealogy of the Bukusu for example, Manyasi (2015), articulately states, *“Babukusu babumbwa nende Wele Khakaba abuntu bali Emakunda esibakala niyo omuntu wekhuranga, Mukhobe asala Mutayi, Mutayi asala Mukhale, Mukhale asala wanakhatandi, Wanakhatandi asala Sampa, Sampa*

asala Mubukusu, Mubukusu asala Mwambu, Mwambu abeyisia bakhasi babibili: Nabarwa nende Sela. Nabarwa asala Silikwa, Kikayi nende Mwalie, Sela naye asala Malaba Neala nende Nabayi”

This voice is translated as, “*the Bukusu were created by Wele Khakaba (God) who created the first man at Emakunda (cradleland) at Esibakala open place) the equivalent of the land between Rivers Tigris and Euphrates (Garden of Eden) where the first Man, Mukhobe sired Mutayi who fathered Mukhale who in turn beget Wanakhatandi the father of Sampa and the grandfather of Mubukusu who fathered Mwambu. Mwambu married two wives: Nabarwa and Sela. Nabarwa gave birth to Silikwa, Kikayi and Mwalie while Sela gave birth to Malaba, Neala and Nabayi”*.

This myth of the origins of the Bukusu people as narrated by the IK specialist at West FM slightly differs with what has been recorded elsewhere by Bukusu mythologists. The important issue here is that the history, religion and culture of this community are so intertwined that it is impossible to talk about one without veering off into the other. Thus the religion and history of a society are similar and interrelated.

Generally, IK custodians and specialist are in agreement that IK comprises culture, history, medicine, philosophy, psychology and mythology of society. . These are embodied in their songs, sayings, and riddles among other stylistics of passing knowledge to society,. For example, Paulo (2015) while lecturing mourners on the third day after burial of another elder cautions people against underrating others. He

does so in a parable, “*Wakhuleka apa mao na walolele*” translated literally as “he who underrates you beats up your mother as you watch”. The import of this saying is to warn and caution people to desist from having low opinion over others.

On the other hand, spiritual leaders make use of funeral rites to educate society in general on matters that affect wellbeing of society. The researcher attended one such a rite (*lufu*) and observed the manner in which IK was transmitted to the audience (mourners). Women sat on the ground on one side with their legs stretched while men sat on seats on the opposite side in total silence. There was minimum movement allowed; in the event that one felt like going out of the gathering even for a call of nature, he or she was not allowed to rejoin the proceedings. The traditional priest or spiritual leader stood in the middle from where he addressed his audience if the deceased was a young person or a woman but walked from one end to the other if and when the deceased was an elder (*khuswala kumuse*). In either of these scenarios, the spiritual leader taught, advised, cautioned and admonished his audience. The spiruatual leader, Paulo (2015) says, “....*Bantu befwe, lulumbe lubi ,lumila , balayi ne baabi, babana ne bakhulu, bakhhasi ne basecha.....maniafu alikho, mwilinte. Wele akhuwa kamaloba, karumukhile bulamu nabulio, lima, biala kimioko, chimaito, buulo, kamaemba, kamabwonti ne kimitorotoro. Lia bibienebio, lia esufwa, lia murere, lia enderema, lia lifwafwa. Rumikhila lubonda khungonela chinyenyi.....lelo mukoya buubi...munywa buubi oli mwola muchinju chenywe samulia biebakhasi benywe tawe,....khamufunaka chingoba chenywe.....*”, In the above voice quotation, the spiritual leader consoles the bereaved by telling them to

accept that death is inevitable and does not discriminate whom to devour, since everybody is a candidate. On agriculture matters, he advises people to fight famine and hunger by growing drought resistant food crops such as millet, sorghum, bananas etc.. To avoid lifestyle diseases and for a healthy society, he laid emphasis on eating. Indigenous vegetables such as *saga and esufwa/suja* (bitterlike vegetable that has to be cooked in specialized style), *murenda and murere* (slippery type of vegetables), *kumushebebe/lishebebe* (pumpkin leaves) and others flavored with milk cream or fermented milk.

Regarding food preservation, the spiritual leader advised , *“balebe base, mukhalekha biakhulia biabola tawe. Yomikha nasimya, kamakanda, kamabwondi ne bilio bibindi, khoomba bubukhi, buli kamalesi, entulwe kamalesi ka malaria, mukinyechenge khukhingilila malaria.....la bumesi..baraka, mulekhe bumesi nyo mube ne lisaye; babantu babuna khube”* The literal translation of this text in English reads, *“my people, do not leave food to go bad; smoke it, dry food in the sun: aize, beans, sweet potatoes and others. Eat, honey for your health; drink animal bile to protect yourself from malaria, it is medicine.....young people; you should abandon alcohol and drunkenness..it is finishing people.....”* The spiritual leader lays emphasis on food preservation to fight against famine. He advised that food should be preserved by either drying in the sun and or smoking. He admonished the youth against reckless drinking that is causing marital discord and family breakdown due to sexual malfunction because of consuming fourth generation alcohol. He encouraged moderated use of indigenous beer. He stated that pure traditional brew was healthier

as compared to the second generation brew which has wasted and is wasting away a whole generation. The spiritual leader went on to talk about a host of other practices that underpin traditional or indigenous knowledge including but not limited to midwifery, traditional medicine among others. His stylistic transmission devices included narratives, riddles, sayings, proverbs and questioning. The application of these styles kept the audience yearning for more without realizing that the lecture had taken too long.

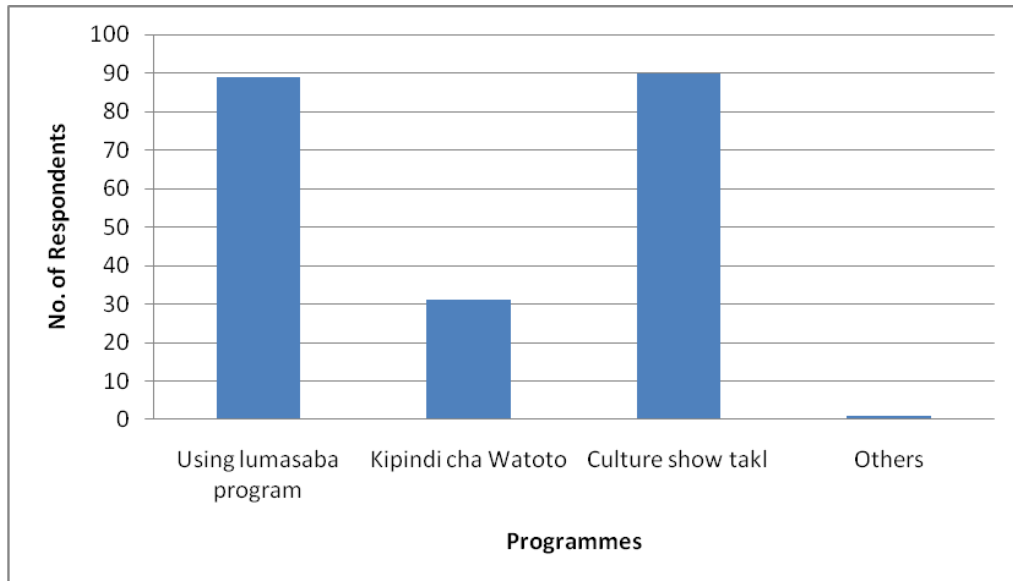
4.4. Dissemination of Indigenous Knowledge by West FM Radio

This section sought to evaluate the West FM IK dissemination practices and procedures. It encompasses programmes, media and alternative means applied in the dissemination of indigenous Knowledge

4.4.1 Programmes used by West FM to Disseminate Indigenous Knowledge

The researcher sought to determine the seriousness accorded to IK by interrogating the nature of programmes and or procedures developed by the radio station for IK issues. It emerged as shown in figure 4.4.1 that there are three programmes that the station employs to disseminate IK. Accordingly, the *Lumasaba*, *Kipindi cha watoto* and cultural show talks are the main programmes for sharing IK. Apparently, *Lumasaba* as pointed out by 43% and cultural show talks by 42% of the respondents are the most utilized programmes in the dissemination of IK. *Kipindi cha watoto* was mentioned by 14% of the respondents because it only features once per week and also targets junior audience of west FM who did not participate in the study. It is

however important to point out here that this programme is relevant since it immerses children who are in their formative stages into their communities' body of knowledge. It is expected that such children grow up having internalized the communities' ways of life. West FM has made it open to all schools from all the counties under study to participate in its junior competitions in which children perform and explain matters indigenous. Upon request by an interested school, opportunity is granted to it for the children to showcase their cultural and morality potential through *kipindi cha watoto* in which they have the option of transmitting their society knowledge as embodied in idioms, riddles, proverbs, songs, poetry, sayings, and tongue twisters among other IK genres. This programme commands large following among junior audience across the seven counties under study topographies. Finally, 1% of the respondents stated others as programmes for disseminating IK. This group of respondents comprised mostly those who were not sure of the programmes that disseminate IK. See the illustration in figure 4.8.



Source: Field Data (2015)

Figure 4.8: Programmes used by West FM to disseminate Indigenous Knowledge

The researcher also engaged the lead IK custodian over the most popular programme that is used in the transmission of community IK. Manyasi (2015) explained, ‘Lumasaba luwa babana benju ya mulembe bulala. Luamabasia babana ba mulembe khukhwama embale khukhwola ebupokoti nende sixtifwo mubarwa.....’. This translates “*the Lumasaba IK programme is the most popular tool of uniting the Mulembe (Abaluyia) that stretches from Mbale in Uganda to West Pokot and 64 of the kalenjin land (Eldoret).....*” Thus, among the three programmes, the *Lumasaba* features prominently. It is the main vehicle used during weekends to transmit IK. Because of its interactivity and popularity, it commands a lot of listenership across the seven counties under study and even the Eastern Uganda. It is no wonder that it is christened *Lumasaba* not only to depict the distribution of listeners across to Uganda but also to unify the different ethnic communities in the listenership topography.

The Lumasaba literally denotes all Luhya dialects stretching from Eastern Uganda (Mbale) through Kenya's Luhya land to West Pokot and Eldoret in the North Western topography (North Rift). The purpose of the programme is to resuscitate the disintegrating Luhya nation and bring a semblance of unity. The justification for this is that all Luhya speaking peoples originated from the same source *Masaba* (Uganda) before settling in their current areas.

One of the West FM Trana-Nzoia journalist mentions *Litungu* as another IK programme that is hosted from Monday to Friday starting at 9.00 P.M to midnight. Shebe (2015) explains, “ *there are of course other community specific IK programmes that are allocated airtime to talk about their iK. The Bukusu have the Litungu as another programme for disseminating IK through the West FM radio.,..... Litungu is synonymous with the Bukusu traditional three stringed guitars that play traditional music. It is from this instrument that the programme name was derived.*”

Through this programme, selected traditional music loaded with moral and ethical issues is played. The music is punctuated with interludes of commentaries from the programme host and or IK custodian invited to grace the session. The same is replicated for other ethnic communities in the listenership topographies which are also allocated specific hours of the day to discuss matters of IK pertaining to their communities. Therefore, though West FM has tried to strike an ethnic balance by allocating airtime to most of the ethnic communities in the listenership topography, the Bukusu ethnic group seems to have a larger share of the airtime which does not

augur well for a station that strives to unite all ethnic groups in its audience topographies.

4.4.2 Frequency of Indigenous Knowledge Programmes

From the table 4.1 below, most of the respondents (60%) stated that the IK programmes are frequently mounted while 20% indicated that the running of IK programmes were very frequent. The first component of the audience is probably those who follow the IK programmes to the letter and therefore understand that the running of the programmes is regular. On the other hand, those who intimated very frequent are a few who could be made up of those who tune in to West FM all through and therefore listen to all IK programmes including late night shows that are mounted throughout the week. Last but not least, 15% of the audience said that the running of IK programmes was infrequent. This comprised listeners whose tuning to the radio station was infrequent and therefore assumed that the programmes were equally infrequent. Finally only 5% of the listeners showed that they were not sure of the frequency. This was possibly a component that hardly tunes in to the programmes and therefore could not be sure about the timing or frequency of transmitting IK.

Table 4.1: Frequency of Indigenous Knowledge Programmes

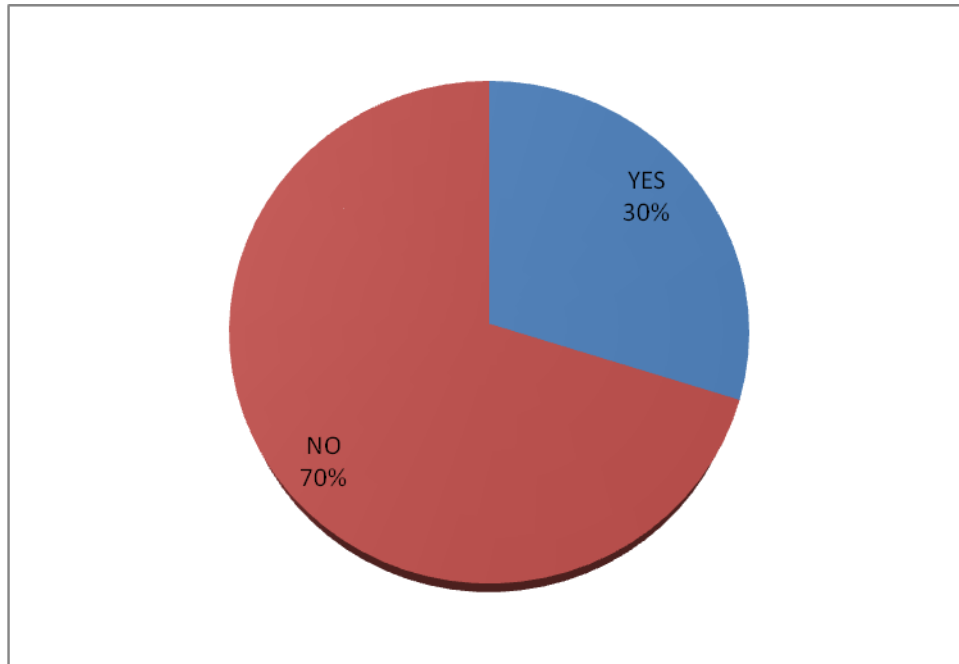
Frequency	Very frequent	Frequent	Infrequent	Not sure
Respondents	20 %	60 %	15 %	5 %

Source: Field Data (2015)

4.4.3 Adequacy of Indigenous Knowledge Programmes

The respondents were asked to state whether the programmes adequately addressed all IK aspects of the entire listenership of West FM that spans the Eastern Uganda, Western and North Western topographies in Kenya. From figure 4.9, a quarter of the respondents (30%) opined that the IK programmes are adequate since they are able to address all IK issues that are community specific, in this case for all communities that have demonstrated interest in exploiting West FM to share their indigenous knowledge. This was also confirmed through interview with the programme manager who argued that the station has open opportunities and or sessions for the different ethnic divide of the area under study. He further stated that the station has a variety of IK rich programmes that are interactive providing room for listening, questioning and or probing phenomenon for clarification. *“Such programmes address major issues of life including but not limited to culture, education and religion.”* The program manager therefore argues without fear of contradiction that West FM adequately caters for all communities in the listenership topographies. He emphatically went on *“ West FM has made it open to all communities to make use of the facility to showcase their IK prowess and that no community has been denied the opportunity to use the station”*. This school of thought was echoed by the station’s IK hosts and content managers who argued that the station provides equal opportunities to all ethnic communities and not a single community has been denied chance to use the station to communicate its knowledge.

However, an overwhelming response (70%) was in the negative (see the figure below). One of the Mt. Elgon location chief, Cheregony (2015) did not mince his words, *“the programmes were inadequate since the coverage was skewed as it favoured only one community of the Luyia yet the coverage area is cosmopolitan with people of other ethnic and racial extraction like the Iteso, Sabaot, Asians, Kikuyu and others.”*. This response was based on the fact that Lumasaba, the most popular IK programme predominantly use the Lubukusu, one of the Luyia dialects to disseminate IK and the development programmes through which elders and other opinion leaders engage their constituents in social cultural matters affecting them.. This argument was of course, oblivious of open cultural show talk slots or opportunities available for all communities of the coverage area to practice their IK. This argument is the direct opposite of the programmes management which, in their response that the program is adequate pointed out that West FM has an open door policy in embracing all communities to showcase their indigenous knowledge. However, it is clear that the radio station seem not to have made its opportunities visible to all communities. It therefore may have to do aggressive marketing to attract far flanked audiences like the Pokots, the Nandi and other minority groups to effectively make use of the station in engaging their peoples and their indigenous knowledge matters.



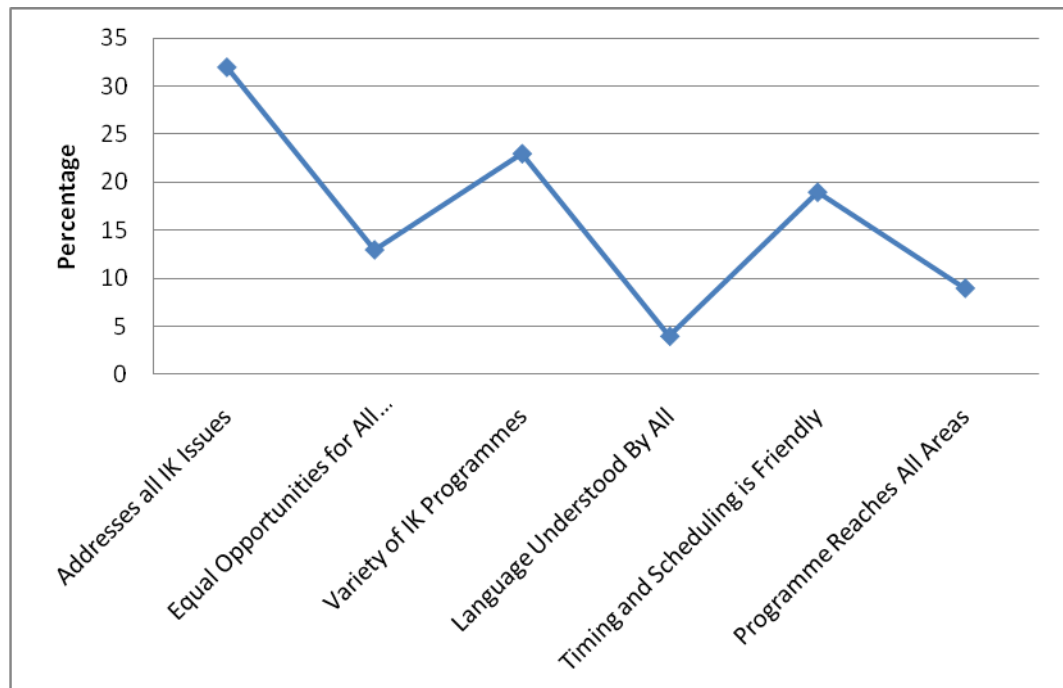
Source: Field Data (2015)

Figure 4.9: Adequacy of Indigenous Knowledge Programmes

4.4.4 Indigenous Knowledge Programmes Adequacy Indicators

The researcher asked the respondents to indicate areas that they deemed the programme adequate. From figure 4.10, it was found out that 12% of the respondents stated that the programmes adequately address all IK issues, 5% indicated that the programmes provided equal opportunities to all people within the coverage area, 9% intimated that there was a variety of IK programmes, 2% stated that the language used was understood by all people, 7% were satisfied with programme timing and scheduling while 6% opined that the programme touches on all areas of life. It is clear from this pattern of response that the audience is not satisfied with the programme on matters of inclusivity. In fact for every item inquired on, the respondents who stated its adequacy was less than 13%, implying high levels of inadequacy in all the

pertinent areas that underpin the transmission of IK. The radio station has to go back to the drawing board to ensure that the dissatisfaction as pointed out here are addressed if the IK programmes have to be accepted and owned by all local communities in the topographies under study.



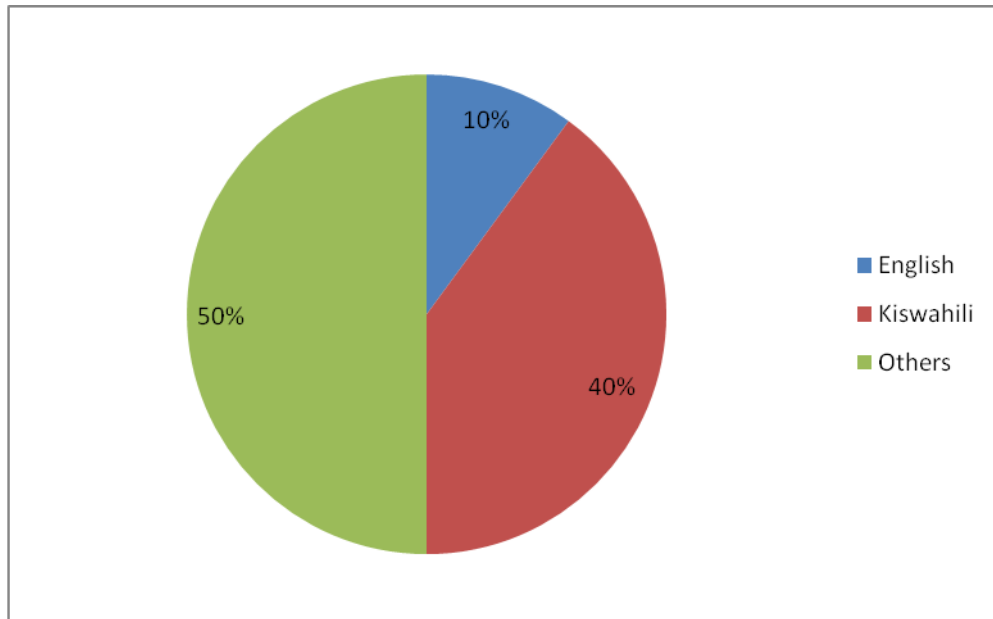
Source: Field Data (2015)

Figure 4.10: Indigenous Knowledge Programmes Adequacy Indicators

4.4.5 Language used to Disseminate Indigenous Knowledge

The study sought to establish the languages used in the dissemination of indigenous knowledge. The other category of languages (50%) which represents local languages were the most used in the dissemination of indigenous knowledge, while 40% of the respondents stated that English was used and 10% respectively indicated Kiswahili as the language used. This scenario is attributed to the fact that since English and

Kiswahili are used in formal setting, it goes without saying that they can be applied in all forms of communication. However, in this response, the local languages seem to be applied most. See figure 4.11.

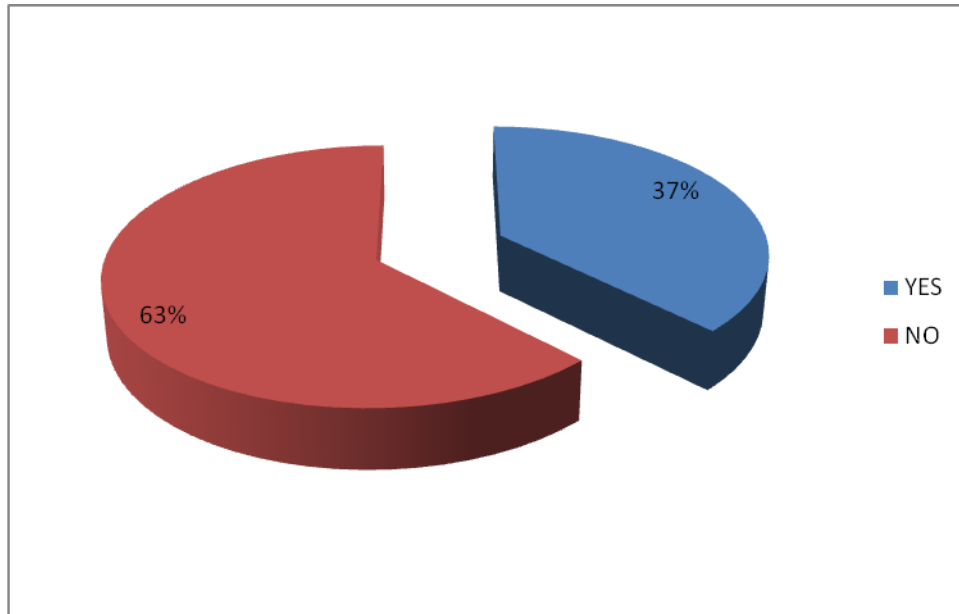


Source: Field Data (2015)

Figure 4.11: Languages used to Disseminate Indigenous Knowledge

4.4.6 Adequacy of Language used in the Indigenous Knowledge Programmes

To begin with, the researcher sought to know if the language used for IK dissemination was adequate. As indicated in figure 4.12, 63% of the respondents stated that the language used was not adequate. Only 37% affirmed that the language was adequate.



Source: Field Data (2015)

Figure 4.12: Adequacy of Language used to disseminate Indigenous Knowledge

Asked through additional open ended question to explain why they said that language used was inadequate, respondents of this school of thought pointed out that though the *Sabaot*, *Ateso* and *Lubukusu* are used for transmission of community specific IK, the language overwhelmingly and frequently used is *Lubukusu*.

Thus there were contestation innuendoes that *Lubukusu* was the most favoured medium of communicating IK and this tend to limit the program to only those who understood the language at the expense of other communities which felt discriminated against. They suggested the inclusion of other local languages and the use of Kiswahili and English to bring every community on board. It is important to point out here that those who stated that the language used to disseminate IK was adequate are the indigenes of the very language in use (*Kibukusu*). Be that as it may, to address this discrepancy, West FM should develop a language policy that would

have to address such concerns and therefore avoid thinly veiled complaints of exclusion and inclusion before the situation escalates into uncontrollable proportions.

4.4.7 Indigenous Knowledge Policy Framework

The researcher sought to know from the respondents if there was a policy framework to regulate IK programmes at West FM and the country at large. In response, 20% of the respondents stated that there was, 60% asserted that there was no such a framework while another 20% were not sure. This is illustrated in the table 4.2

Table 4.2: Indigenous Knowledge Policy Framework

Response	Yes	No	Not Sure
Percentage of Respondents	20%	60%	20%

Source: Field Data (2015)

From the above responses, it is clear that there is either inadequate or no policy and legislative framework to operationalize IK management in the country. Therefore, IK dissemination practices are poorly regulated both at the national and West FM levels

4.4.8 Policy Components

The researcher wanted to establish issues that would constitute an IK policy were it to be formulated. The question elicited varying suggestions as indicated in table 4.3. Accordingly, 15% of the respondents suggested establishment of a legislative framework, 25% were of the view that language should either be a policy or an aspect of IK policy, 15% talked of coverage and 15% indicated content respectively.

To them, this was to strike a balance in content coverage of all communities. Last but not the least, staffing was also mentioned as an important aspect by 20%. This came against the backdrop of general journalists doing IK chores and therefore arose the need for specialized IK professionals to handle IK issues. Finally, a minimal 5% pointed out copyright as an issue for the policy. This is probably due to the fact that fewer respondents understand copyright issues and how they underpin IK.

Table 4.3: Policy Components

Policy Issues	Legislation	Language	Coverage	Content	Staffing	Copyright I
Respondents' Percentage	15%	25%	15%	15%	20%	5%

Source: Field Data (2015)

From the answers provided to qualitative question on IK policy issues in the country and West FM radio, the responses were either “I am not aware”, “there is a policy” or “there is no policy”. Despite the fact that some respondents were not sure of the existence of a policy, there was a substantial number of respondents who indicated that such a policy does not exist both at the national and radio level. Members of staff who gave their response through interviews stated that West FM has some basic guidelines that are applied in the running of IK programmes.

Further to this, they pointed out what would constitute components of an IK policy that include but not limited to definition of indigenous knowledge, airtime allocation to IK programmes, personnel requirements for running the programme, ethical

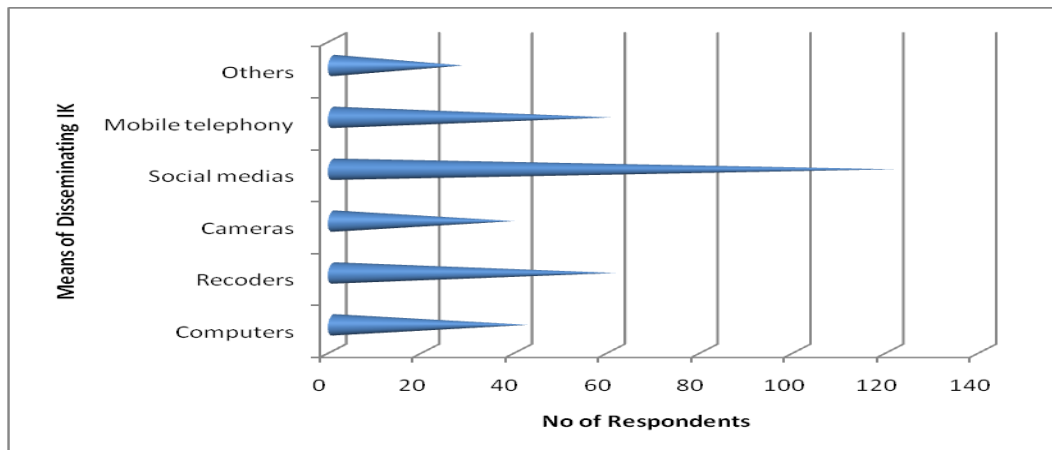
issues, sustainability of the programme and media council of Kenya guidelines and regulations among other issues.

It is, however, important to point out that the existing guidelines according to some respondents, are not comprehensive since they do not factor in the composition of the audience in terms of language and content. It is presumed that all the audience are from one ethnic community and therefore can understand the language in use, an assumption that does not augur well with some staff members and a section of the audience who feel that their IK is marginalized by the policy framework.

Asked about the way forward, Omutulumeti (2015) asserted, “ *matters regarding policy should be all inclusive and should factor in issues such as inclusivity, funding, language, staffing..... among others*”. From the voice above, most informants suggested review of the policy by a representative task force that should address policy imbroglio as a matter of urgency; they envisage a policy framework that caters for all people of the Western and North Western topographies regardless of race, ethnicity, religion or creed by ensuring that their indigenous knowledge content and language finds adequate space in the IK programmes. It was also argued that the funds issue has not been adequately treated in the policy framework. Therefore, matters pertaining funding, sources of funds and other resources concerning IK programme should be clearly spelled out in the envisaged policy. In this case, funding is not only looked at from the programs point of view but from the social economic wellbeing of the people involved in the running of these unique programmes.

4.4.9 Media applied in the Dissemination of Indigenous Knowledge

The researcher wanted to find out the media that are applied by West FM to leverage IK dissemination. In figure 4.13, out of 276 respondents, 43% stated that social media was the most utilized alternative medium of disseminating IK, 21% respondents mentioned mobile telephony as another media. Computers, cameras and recorders were each pointed out by 14% of the respondents respectively. Social media and related applications comprise facebook, WhatsApp, Instagram among others that have given the IK programmes a global reach. Social media as a tool was pointed out by the highest number of respondents because it is directly proportional to social media users (youth) who incidentally formed the highest level of the study respondents.



Source: Field Data (2015)

Figure 4.13: Media used by West FM to Disseminate of Indigenous Knowledge

The finding on social media was confirmed by the programme manager Nantemu (2015) who stated, “*whereas the radio was limited in frequency only to Western Kenya, the station makes extensive use of internet and social media to reach*

audience in diaspora such as the USA and UK who, at their convenient time can visit West FM website and playback the IK programmes; West FM is a global radio and therefore our programmes are not local”. The researcher was informed that the IK programmes have overseas audience and that countries such as the USA and UK have staunch followers of the programmes who use internet related technologies like social media applications, and websites to get access to the IK programmes and even give feedback.. This has made them to touch base with developments in this area despite being thousands of kilometers away.

This was also echoed by the IK custodian, Manyasi (2015), while responding to issues of coverage; *Ata babantu befwe bali mu bibala bie mumbo nga Ebumerika boosi bakhulekeresia khubirira khumutandao.* This is literally translated as “*even our people in the western countries such as the America tune in to the programme through the internet.* He stated that at the time they are on air, the US is ‘asleep, but by 4.00 AM, U.S time, their audience will be able to download the programme and listen to it. Though oblivious of the real time nature of the social media, the point emphasized here is the fact that whatever is aired can be accessed anywhere in the world as long as the audience has the relevant information communication technologies at his or her disposal. These sentiments blends well with Sharma (2014) who asserted that emerging information and communication technology (ICT) is setting the pace for changing, competitive and dynamic local and global information, representing an invaluable vehicle for exchange and socio-cultural development

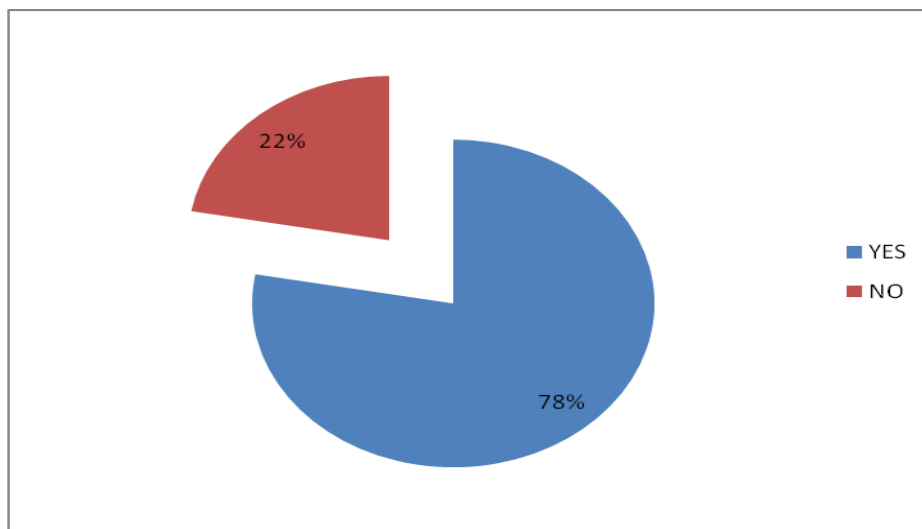
while introducing new forms and structures of society that are no longer affected by geographical or time barriers.

On the other hand, the researcher observed that mobile telephony is a technology that has enhanced the dissemination and sharing of IK. To some audience, mobile phones are a means for engagement; listening, inquiry, argument, warning or cautioning either individuals, groups or between the listener and the IK anchor or specialist during the airing of the programme. The researcher also observed that because of the multi featured nature of contemporary mobile phones, some of the phones were used to capture, record, photograph IK related activities, artifacts or even functions and then share among the interest groups.

The above scenario is advocated by the World Bank (1998), who posited that as countries establish connectivity, modern ICT could become a powerful enabler for the exchange of IK. In the near future, external support to help build local capacity for dissemination could focus on videos and radio broadcasts in local languages (especially in the rural areas), tele-centers (again in the rural areas), and electronic networking, especially among local IK centers. To this, Nataka and Langtone (2005) add that media houses must consider themselves as contemporary organizations relevant not only for news factor but also important for transmitting and sharing indigenous knowledge. West FM therefore has repositioned herself in the 21st century knowledge paradigm through the unpacking of various indigenous knowledge systems to its listeners who would otherwise have been ignorant of their community knowledge.

4.4.10 Existence of Alternative Channels for Disseminating Indigenous Knowledge

Asked if there were other ways for sharing and or disseminating IK, 78% affirmed that there were while a small percentage (22%) of respondents stated that there were not. This is as illustrated in figure 4.14.

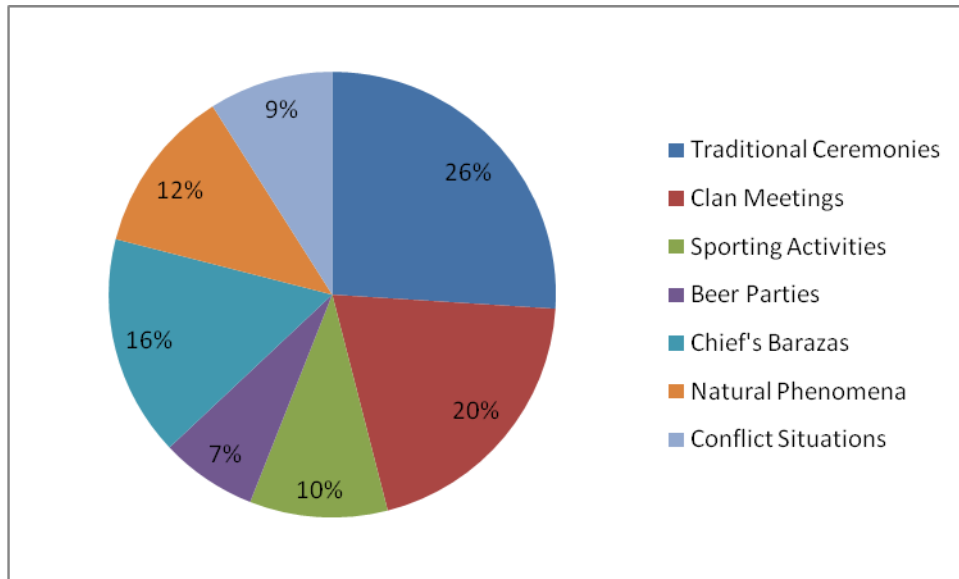


Source: Field Data (2015)

Figure.4.14: Existence of Alternative Channels for Disseminating Indigenous Knowledge

The researcher sought to know further the actual alternative channels for transmitting IK besides West FM Radio. From the response in figure 4.15, 26% stated that traditional ceremonies provided fora for sharing IK, 20% mentioned clan (meetings), 10% stated sporting activities, 7% reported beer parties, 16% cited *chiefs' barazas* (meetings) 12% pointed out natural phenomenon while 5% were of the view that conflicts situations provided opportunity for sharing IK. From this pattern of response, there are other means through which IK is transmitted and shared other

than the West FM radio. It is also clear that the most understood means of transmitting IK are traditional ceremonies, clan meetings and *chiefs' barazas*. This is as illustrated in figure 4.15



Source: Field Data (2015)

Figure 4.15: Alternative Channels for Disseminating Indigenous Knowledge

Likewise, literate interviewees especially the programme hosts suggested that there were other means through which IK is disseminated. To quote one of the hosts' response as to whether or not there were other means, Omutulumeti (2015) interjected "...yes, of course *West FM* only supplements the dissemination process. There are other ways through which IK is disseminated such as research, information centres, conferences.....". It is obvious that there are a variety of ways through which IK is transmitted such as research, conference proceedings, journal articles, and even through book publications. An example given is the *Western Chronicle* which is a weekly Magazine of West FM that gives discourses on various

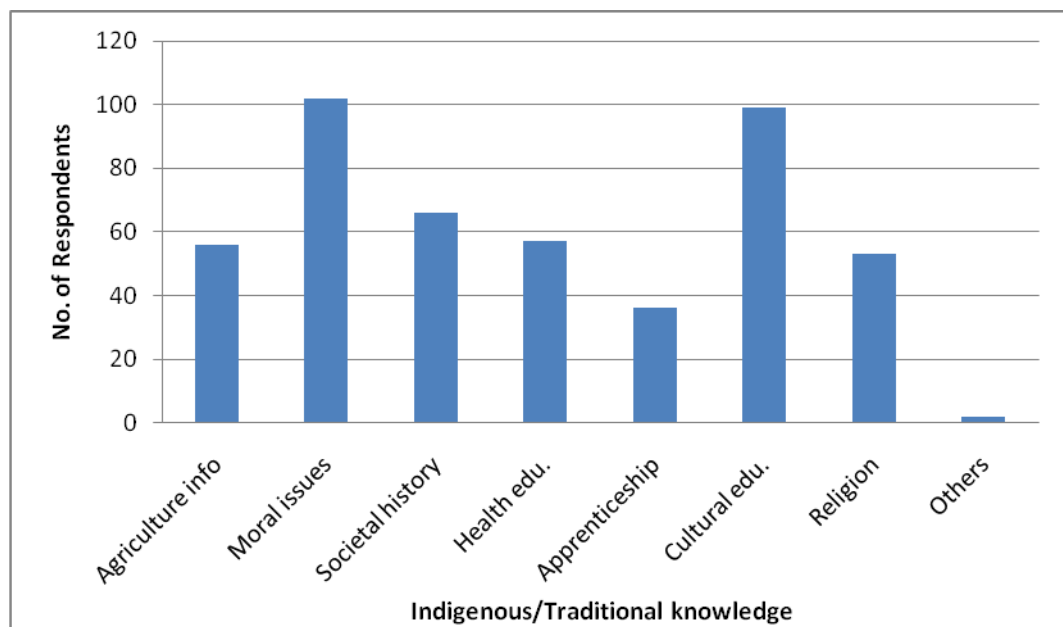
IK issues surrounding the area of the study. It is thus obvious that besides West FM Radio station, there are other means for disseminating and sharing IK that should be brought on board by the station to leverage its IK dissemination programmes.

Libraries, archives and other information centres are also important institutions that facilitate the dissemination and sharing of IK. IFLA (2008) noted that libraries have the duty of implementing programmes for collection, preservation and dissemination of indigenous knowledge and local traditional knowledge resources. That is, the library has responsibility to publicize the value, contribution, and importance of indigenous and local traditional knowledge to both non-indigenous and indigenous people. On the other hand, archives and museums provide the much needed resources that contain indigenous knowledge. The museums, apart from preserving artifacts also propagate traditional plants that are endangered yet they are very handy in matters of health. It is in archives and museums that original records and artifacts embodying various communities' IK can be found. Researchers and scholars of all walks of life cannot ignore these cultural institutions in their endeavor to expand the frontiers of knowledge. Therefore archives, museums and libraries are indisputable means through which IK is transmitted and shared.

4.5. Indigenous Knowledge Domains and Practices Disseminated by West FM

The researcher inquired from the respondents about the different types of IK disseminated by West FM radio. From their various responses, it was established that West FM disseminates IK that is crosscutting in various aspects of life. As indicated in figure 4.16, cultural education and moral issues were alluded to by the highest

percentage of respondents at (57%) each. Other forms of IK disseminated by the radio as pointed out by the respondents include agriculture (33%), society history (35%), health education (27%), apprenticeship (16%) religion at 27% others were stated by a paltry 1%. It is however important to point out that some respondents pointed out more than one aspect as forms of IK disseminated by West FM.



Source: Field Data (2015)

Figure 4.16: Indigenous Knowledge Domains Disseminated by West FM

Further to the responses above, the researcher interviewed the custodians on community IK practices that the radio disseminates. Omuchuma (2015) quipped, *“The radio station concentrates on practices that are community based, especially those whose end product is to transform living standards of the people. Such practices include clan identity, indigenous land-use systems, labour-sharing arrangements among farmers, cultural functions, education, peace,*

entrepreneurship, kinship, institutions, trade, natural resources among others all of which require the application of IK to improve living standards. The concern here is the dissemination and application of the said practices that provide problem-solving strategies for local communities such as midwifery and herbal medicine, spiritual leadership, traditional ceremonies such as administration of justice, circumcision, agriculture, veterinary medicine, rainmaking.

According to Eyong (2007) agriculture comprises the largest collection of indigenous practices the world over. At the foundation of this lies the fact that the introduction of mechanized agriculture, fertilizer and phytomedicines has made modern agriculture more expensive for local people as compared to indigenous agricultural practices which were affordable. Besides, modern agriculture and land use has brought about reduction of genetic variability. Due to this, IK experts through the West FM advocates for introduction of indigenous species of crops and animals. Namande and Oyier (2015) confirms that in Kenya, there is a campaign to revert to indigenous agriculture also called indigenous food revolution identified with crops such as grain amaranth, cowpeas, jute mallow, Ethiopian kale, spider plant, African nightshade and pumpkin leaves among others.

For the purpose of this section, the researcher used the data recorded from the interview with Bukusu elders who gave detailed review of their practices with passion and nostalgia. Regarding food, an elder, Manana (2015) stated, *indigenous food as eaten in the days past was better than modern dishes that are only sophisticated in cuisine styles but with little food value. Indigenous diet was*

reasonably wholesome since it was varied with different nutritious dishes derived from indigenous crops, wild plants, domestic animals, wild animals, and insects such as termites, locusts, grasshoppers, cow dung crabs and many others.

Here, the elder underscores the need to feed on traditional foods that have health value. It is important to note that eating was systematic in terms of who ate with whom and what was eaten by whom. Manana (2015) elaborated further, “*among the Bukusu, mothers separately ate their food with their daughters and young boys while fathers shared meals with circumcised sons. Likewise an uncircumcised person would neither wash hands before a circumcised person did, nor was he allowed to share the same dish with a circumcised person. This reflects community’s structured ways of respect between the juniors and seniors....food was also shared with those who did not have regardless of who they were....*” Interestingly, the community emphasized sharing of meals with neighbors. Despite the structured eating regulations, men would eat their foods outside the house as a way of expressing their generosity and willingness to share with others who may be in need. “*the head of the house (man) could not eat from the house especially during the day, he ate outside under a tree or on top of an anthill to express the family generosity.....*”(Omuchuma, 2015).

With regard to child bearing, the Bukusu greatly desired to have children whose birth increased family happiness. *Male children were desired most, however, a man without daughters considered himself poor since he could not benefit from bride wealth. A balance in the two sexes was ideal. On the contrary, a state of*

childlessness was a sign of misfortune and therefore was frowned upon and the victims were normally women who were accused of barrenness. On the other hand, the birth of twins was both a blessing and a sign of disaster. After the birth of twins, both the mother and children are required to be secluded for a long time until the prescribed sacrifice of a sheep and beer drinking was performed to 'open' or release parents from seclusion (Manyasi2015). This is a reality in the social cultural setting of the Luyia communities that have no space for childlessness and laid emphasis on striking a balance between both boys and girls for perceived social economic benefits. The custodian explained that the issue of twins is sensitive in some clans as it leads to family breakdown and therefore it is necessary that it is programmed for educating the people to appreciate birth of twins as a blessing but not a curse from God.

Normally, the birth of a child was followed by elaborate undertakings. Manyasi (2015) explains, *"After birth, naming took place. A child was given a name in relation to the season, or place where the child was born. Ancestral names, preferably from very admirable and successful ancestors were given to keep sickness or nightmares away from the kid. .. Twins were given names depending on who came out first; the first one to be born was called mukhwana and the second mulongo.* Thus, child naming was as important and involving as was any rite of passage. Relatives and friends shored the new-borns with gifts ranging from foodstuffs, clothing and even live animals.

As a rite of passage, circumcision was and is a reserve for boys only. “*Circumcision marks the end of childhood and transforms the youth into adulthood in terms of morals, behavior, responsibilities and exposure to community education.. Circumcision was and is still based on eight circumcision age grades, (bibingilo) each of which has six age sets (chimbaka). The age grades comprised kolongolo, kikwameti, kananachi, kinyikeu, maina, nyange, chuma, and sawa.....* . (Wepukhulu, 2015). Wepukhulu, a traditional circumciser explains that the Bukusu community circumcises their sons aged between 11 and 15 years. The boys who brave the knife of the circumciser are praised and given gifts while those who show fear by making some movement or crying are jeered at and condemned for having caused embarrassment to the family, clan and community at large. Those who undergo traditional circumcision are taught by the circumciser about origins and importance of circumcision together with the various age sets among the Luyia circumcision groupings and community expectations,

The other important customary practice that the west FM amplifies from time to time in its IK programmes is marriage. *Marriage gives a man recognition, prestige and influence A young man intending to marry could not marry a woman who is a divorcee, a widow or one who has given birth out of wedlock. He could also not be allowed to marry a relative.* Thus West FM IK programmes features marriage and underscores its importance as an institution that symbolizes the continuity of the family unity and society in general.

With regard to administration of justice, Manyasi (2015) explains that all laws were rooted in the tribal customs and traditions. Ethical rules and legal precepts that guided court decisions were anchored in proverbs, sayings and songs. Action against offenders was geared towards reconciliation and compensation for offences against the individual and his next of kin vis a vis neglect of customary obligations. It was also geared towards prevention of disaster to the group as a whole because of violation of taboos that might bring down the wrath of the spirits. As an example, adultery is a serious offense in the Bukusu society. In fact, aggrieved husband is entitled to killing an amorous man if found ready handed in bed with his wife. However, if a case is brought before the court, it is decided with a view of reconciling the conflicting parties. The offending man was expected to return to the complainant some animals he had paid for bride wealth, or alternatively the complainant was allowed to divorce his wife; this action was not only meant to humiliate the offenders but also served as a warning to similar offenders. From the foregoing, West FM transmits programmes that are laden with IK practices that are important for communities' socio economic such practices comprise morality, agriculture, culture among others.

Finally, through participatory observation of the Bukusu annual cultural festival at the Sang'alo Cultural Centre in December 2015, the researcher noted that what the opinion leaders and elders dwelt on most was health and cultural education. The narratives and explanations churned to the audience by these key speakers seemed to corroborate the data generated from questionnaires regarding health, culture and

morality. One of the elders who is also a renowned academician, Prof. Chris Wanjala was called upon to talk about education from the cultural context. While addressing the festival audience, Wanjala (2015) stated, *“Mulembe lirango lie njofu. Murioo, murio khukhebulila kumwima ne kimima kiefwe kie simachamacha. Bana Babukusu, khukhebulila niyo khwama. Akhaba busomi bwa luno na buliwo, khulakilwa khumanya mbo kamasoma kesikhale kalimo enganga. Omutayi kaloma ali mao khakhamaliya mukhono, mao niye, somwikana tawe. Bulebe sewesinga ta. Khukhebulila kumwima kwefwe tawe Babantu luno bakuniukha nebasili babana khubela khulia buubi. Lelo babantu basima bikhalange, biya khangu balie. Ya ba khale, bantu balichanga bulayi, yaba balia bubuukhi, kimioko, kamatore, embama, menula ne biakhula bibindi yaba bikhola babantu bamenya kimiaka kimikali....Bana befwe, sina sikila babana na babeisiana? Sina sikila babana nebakharia babantu bakhulu tawe? Sina sikila babana besikoko nebakenda sichula? Libukana ne busomi bwa luno bilayi. Nekhali, khubirumikhile bulayi, khurusiemo kali kamalayi khuifwe ne kalikamabi khulondekhana ne kumwima kwefwe khulekhane nako. Khubusomi, abanga serikali ekhuulila, bakhongo baserikali mulia ano ulila, sibala siefwe sinyala sianyola enganga engali nibambo kamasoma ke kumwima, kesimachamacha kasomisibwa mubisomelo khukhwama siekhuranga khukhwola khwisisi... Murio khukhundekeresia.”*

The above text is translated as *“Greetings thigh of elephant. Thanks for appreciating our culture and traditional knowledge. Bukusu children, let us not forget where we came from. Even in the face of contemporary education, we need to remember that*

our indigenous knowledge is valuable. Your mother will always remain your mother despite her conditions. You cannot erase kinship. Let us not forget our culture and traditions. People are now dying in their youthful stage! This is because of what they eat. Nowadays, people love fast foods. In those days people used to eat well. Their diet consisted of honey, cassava, bananas, yams, millet/cassava ugali and many indigenous foodstuffs that enabled people to live long...our people, why are our children intermarrying within their clans? Why are the youth not respecting the elderly in society? Why are our girls walking naked? Christianity and contemporary western education are good but let us use them wisely. Let us appreciate what is good for us and leave out what destroys our morals. On education, if the government listens, government officers who are here, listen, our country can benefit a lot if indigenous knowledge is taught in schools from pe-primary school level through to the university.....thanks for paying attention''

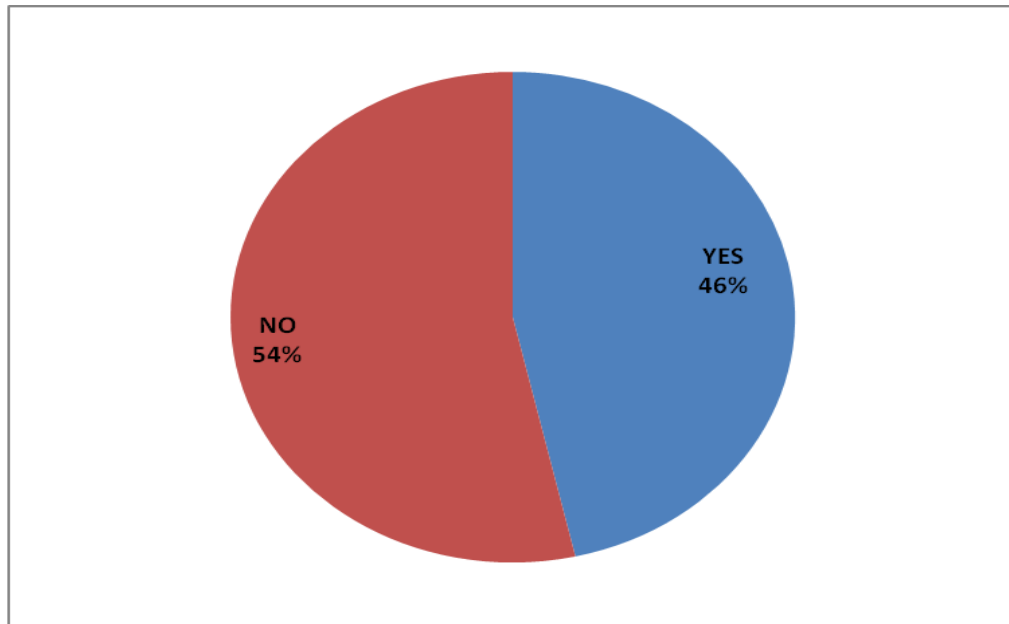
The greetings are figuratively used to mean that the Bukusu people are an open society that welcomes all. From this voice, on the subject of health, IK custodian placed emphasis on healthy living by observing good eating habits: that people should avoid eating too much fats and junk food. Instead of fats, milk cream and traditional salt should be used as sweeteners for foods especially vegetables. Bananas are encouraged to be eaten regularly because of their medicinal values; keeping at bay heart related ailments and even increasing male potency. As intimated elsewhere in this chapter, the use of honey, animal bile and certain herbs as meal additives is

encouraged for both immunity and increased libido. Thus the program is of crucial importance to its audience if adhered to the letter.

Though more than one aspect were indicated as being the subjects of discussion in the IK programmes, the areas that the opinion leader focused on mostly are cultural and moral issues. This is an attempt to counter the social economic impact of the western knowledge, Christianity and globalization that have made many a youth to adopt a freestyle mode of living resulting into corrupted morals and traditional values. It is no wonder then that hardly any IK related programmes concludes without crosscutting moral and cultural issues arising

4.5.1 Sources of Indigenous Knowledge Disseminated by West FM

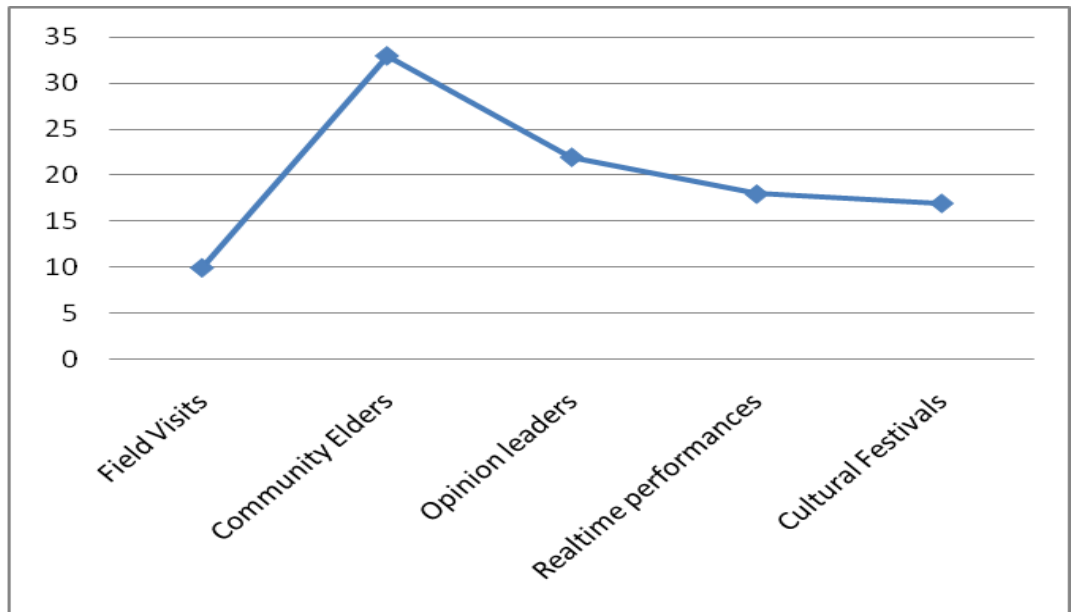
Asked whether they knew the sources from which West FM acquired IK that it disseminates, 54% of the respondents did not know or were not sure. Slightly less than the average of the respondents (46%) indicated that they knew. Figure 4.17 illustrates their pattern of response.



Source: Field Data (2015)

Figure 4.17: Awareness of how West FM acquires IK from the Community

Those who indicated that they knew how the radio station acquired IK for dissemination gave varying suggestions on possible sources. There are those who pointed out field visits by journalists (10%), opinion leaders (25%), community elders (34%), real time performances (15%) and cultural festivals at 17%. The highest sources of IK according to the respondents (34%) were community elders. As stated by 25% of the respondents, opinion leaders are also a significant source of IK for West FM radio followed by cultural festivals (17%) and other performances such as marriage, funeral rites and circumcision among others provided opportunity for those gathering IK to observe, participate and record first hand experiences of community IK. See figure 4.18 for illustration.



Source: Field Data (2015)

Figure 4.18: Sources of Indigenous Knowledge for West FM Radio

The researcher was also privileged not only to participate in various IK fora but also gather data on IK of the different communities in the study area. Among communities that showcased their culture and indeed indigenous knowledge were the Batura, Bongomek, Sabaot, Iteso and Bukusu. Each of the communities had a specific date on which to perform and disseminate their ways of life to society. However, the final day is the end of the year (31st of every year) in which all the different ethnic communities showcase their cultural and indigenous prowess.

As an interested party and major stakeholder, West FM Radio fully participated in these cultural fetes by providing infrastructure and expertise for the occasions. West FM radio provided infrastructure such as cameras, recorders and other ICTs necessary for capture and live transmission of IK. Besides, the crew on the ground

comprised specialized staff of West FM. Therefore by extension, West FM Radio as a media house is directly involved in capture, acquisition and dissemination and therefore plays a significant role in the communities' IK.

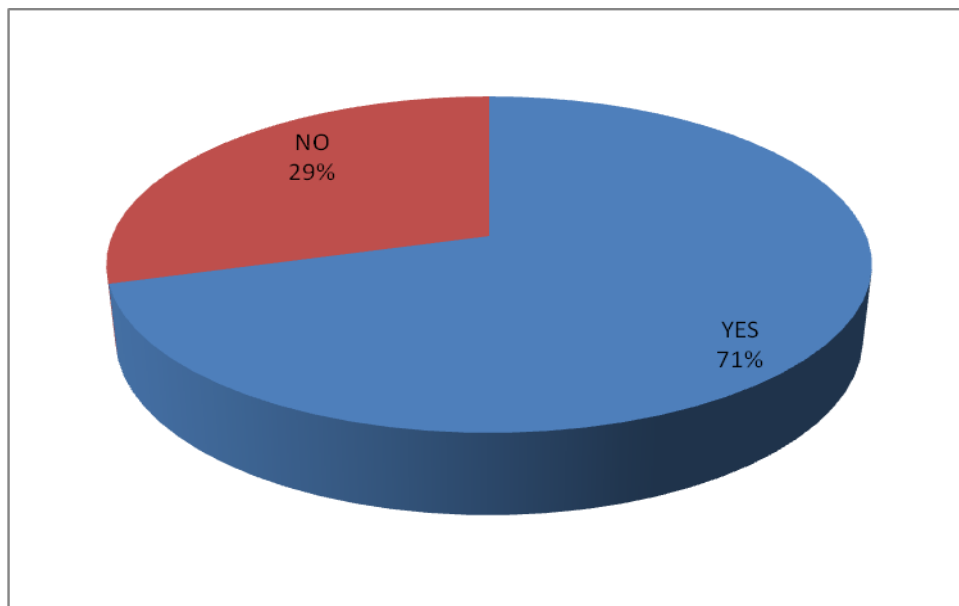
The researcher participated in all these cultural festivals and observed that most of what was performed and practiced vindicates what the West FM disseminates as IK. During these festivals, community specific IK was embodied in life performance of drama, music, dance, poetry, narratives, oral history and exhibitions, cookery among other aspects. It is important to note that as these different genres of oral tradition are performed, they are directly analogized with particular aspects of life. Indeed, this is in harmony with Crosseraris (1999) assertion as cited by Dakir (2005) that individual knowledge is a fundamentally social process, something that cannot occur without some form of interaction; individuals learn from the collective and the collective learn from the individual. What is worth noting is the fact that West FM is a key stakeholder in these functions and even its crew was always on the ground to capture the proceedings and or harvest the communities' IK.

Of utmost importance is the fact that the radio station has embraced fully the transmission of IK by allocating the programme four hours per week. The station has programmes for hosting interviews with elders and IK custodians who are hired on part time basis to educate society. The researcher was able to interact with these groups at individual levels and was able to confirm their value to West FM as far as IK acquisition and dissemination is concerned. The staff suggested that other than the IK specific means as pointed out, the station makes extensive interrogation of IK

documentary sources. Social media is another crucial source of IK since it avails the opportunity of sharing and disseminating newly discovered IK. The youth are the major component of society that exploits social media to share IK. Finally, though not well established, the station makes use of freelance researchers who share their findings with it for onward transmission or sharing with its wider audience.

4.5.2 West FM versus Other Sources of Indigenous Knowledge

The respondents were asked to state if there were other sources of IK apart from West FM. The majority (71%) of them stated in the affirmative, while 29% stated that there were not. This is as illustrated in figure 4.19. This because IK is a communal phenomenon and therefore almost everybody knows the sources from which it is derived and how it is disseminated.



Source: Field Data (2015)

Figure 4.19: West FM Versus other Sources of Indigenous Knowledge

4.5.3 Other Sources of Indigenous Knowledge for West FM Listeners

Asked to particularize the sources, as illustrated in figure 4.20, 14% of the respondents stated that besides West FM, IK can be acquired from library and information centres and from the Kenya National Archives and Documentation Service (17%). This is in tandem with IFLA's (2008) position that libraries have information professionals with skills and competencies to manage knowledge. Therefore libraries and archives have the responsibility of implementing programmes for collecting, preserving and disseminating indigenous knowledge and local traditional knowledge resources. Namande and Oyier (2015) confirms this argument, they see indigenous knowledge resource centres at the level of libraries and archives which should act as a basis of research, documentation, harnessing and dissemination of IK.

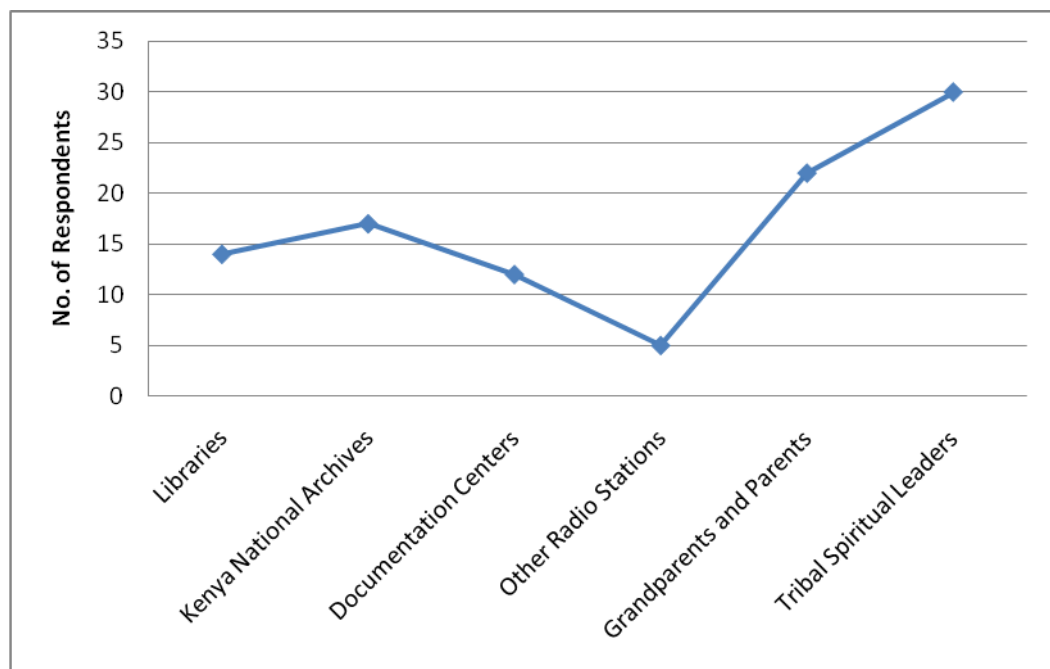
Further, 5% of the respondents added that the West FM efforts to disseminate and make IK shared is complimented by other radio stations such as radio Mambo, Nyota FM, Sulwe FM, Mulembe FM, Masinde Muliro University of Science and Technology and Radio Citizen. Apart from Radio Citizen that highlights major cultural issues regarding all Kenyan communities (*asasi za jamii*) after every news bulletin, the other radio stations run programmes similar to those propagated by West FM. The IK host cum content manager, Omutulumeti (2015) brags, "*whereas the West FM was the forerunner in the field of disseminating indigenous knowledge, other radio stations established long after West FM Radio either aped or started the programmes out of sheer competition or other considerations but have not added*

something unique to what West FM does. In fact, some programmes lack originality and are a mere replica of what we programme at the West FM radio.”. The foregoing statement shows some thinly veiled competition between various FM radios in the dissemination of IK. Indeed, the earliest radio to be established in the study locale was West FM. Likewise; it started broadcasting IK programmes even before other radios were established in the region.

Besides the other competing radio stations, 23% of the respondents pointed out that elders especially grandparents, parents, uncles and aunties were an important segment of IK sources more especially for the young generation. This type of knowledge was transmitted orally especially in the evenings either before or after dinner. The same was shared during working sessions to motivate the youth in their work. Such knowledge encompassed community songs, riddles, puzzles, songs, tongue twisters and narratives that were loaded with valuable moral issues and lessons for the youth to leverage for success in life. Kumar (2014) concurs with this result, he states, “In the 21st century, indigenous information is transmitted mainly through indigenous communication channels: indigenous organizations, folk media, traditional education, and so forth”.

As indicated in figure 4.20 below, the highest number of respondents (30%) stated that local priests or spiritual leaders such as the late. Manguliechi are significant in IK sharing and dissemination. These are community moving libraries or life knowledge repositories that disseminate their wealth of knowledge through sooth saying (*khuswala kumuse*) more especially during funeral rites performed only in

specific clans upon demise of an elder whose grandson (son to his son) has undergone circumcision. This is a mark of maturity hence the needs to sooth say and educate community about its origins, history, culture, dos and don'ts among other portent issues. Such ceremonies are reserved for community heroes only; not performed for anybody who dies. This is as illustrated in figure 4.20



Source: Field Data (2015)

Figure 4.20: Other Sources of Indigenous Knowledge for West FM listeners

When the assistant IK custodian at West FM was interviewed about other possible sources of IK, Omuchuma (2015) quipped, “*Kamasoma ke simachamacha kanyolekha abundu ali simanyisilo sie kumwima kwe babakusu nga Mwiyaala wa mango, Estabicha, Sikele sia Mulia, neandi*”. This can be translated as “*Our traditional knowledge is acquired from customarily revered places with cultural significance such as Mwiyaala wa Mango, specialized places for smearing initiates*

with mad, Mulia's footprints and other places” This implies that there are historical or traditional sites and or places which are revered for their importance to the society's knowledge, history, traditions and customs. Such places include the *Mwiyala wa Mangoin Teso Sub County, Sikele sia Mulia and Estabicha in Bungoma South Sub Count, Sayoni(Zion) at the peak of Mt Elgon* among other revered places.

The researcher sought to know an example of places with IK value and the value they possess for the IK cause. The IK custodian Omuchuma (2015) whose name incidentally is loaded with IK connotations (Omuchuma is one circumcised during the Bachuma age set) explained with passion, *“embalu ye babukusu yarakikhila mwiyala wa mango, liibina nilio yabebe yamenyanga. Yabebe yalichanga chimbusi che babantu. Yaba epurukha busa mala enanyola omuntu eruma khumurwe na afwa. Nyo mbo bekhinge khulumwa nende kuremu okwo, abele babantu banaulila kuuma, buli muntu etiukha lususi nyo kuremu kulekwolera kumurwe kwewe tawe, kuluma lususi lwonge'ene. Mango omukhurarwa, krusia, aakala embalu yewe acha khurwana nende yabebe. Engila mwibiina ebanda alubeka. Kuremu okwo nga kwalota, kwapa kamakanya sinyumanyuma na kwingila mwiibina mala kwara kumurwe khusichikhi nisio Mango kara emuliango. Mango asera kalaa kalaa na akuremela mwikosi. Kumurw kwasuna ne khuluma kusala kwaba simbi amuliango weliibina. Kumusala okwo kwoma bise ebio ne bibiene. Mango apa ekhombi yewe ne khuoyayisha khumanyisia babantu mbo amalane ne kuremu okwo. Babantu becha ne bapa bikalakala ne khukhwimba kimienya kie khumufumia. Sioyo sie Banukusu siamanana ne nyanga eyo. Khukhwola luno luri, se simbibwa busa kufwabi ta,*

simbibwa musikhebo mwong'ene. Khukhwokesia lundi mbo ali omunyitafu, afukilila bamukhebe Omukhebi wa Mango aba omukhasi. Oli bamumala khumukheba, bikalakala biakwa khumwikhoyela. Khukwamila ao, embalu yancha khubao mubabukusu."

Mwiyala wa Mango is a mythological place (cave) that explains the origin of circumcision among the Bukusu people. The above text, translated in English reads, Omuchuma (2015) narrates, "Mango, a legendary hero killed yabebe (cobra) which was notorious for killing people and their goats. The cobra could fly and whenever people heard its roar, they covered their heads with grinding stones to avoid being bitten to death. The cobra stayed in a cave called mwiyala in Teso district which was formally part of Bungoma county and Bukusu territory. Mango was fed up with the cobra that he decided to make history. He sharpened his embalu (machete) and waylaid the cobra at the entrance of the cave. He placed a log at the entrance and hid himself in one of the corners of the cave. When the cobra returned from its hunting spree, it turned and shoved its hind into the cave, placed its head on the log and faced outside. Tiptoeing silently but steadily, Mango was able to chop off the head of the cobra which flew biting a nearby tree that dried instantly. There and then he started singing the victory song (sioyo) and trumpeting that attracted a multitude of people who came singing and praising him for his heroic deed. As a mark of his heroic action he was circumcised. This marked the genesis of circumcision among the Bukusu people. Thus the circumcision he underwent is symbolic of his heroic action of chopping off the serpent's head. To date, the Bukusu have adopted

Mango's victory song as their anthem for circumcision. The song is sacred and is only sung during circumcision and once sung, whoever that it is sung for cannot evade the circumcision knife. When sung, the sioyo or sioyayo casts some spell on both the singers and whoever that is sung for, it equally affects people who have the spirit of circumcision in them who begins running uncontrollably and without feeling tired no matter the distance where the song and or the circumcision procession is taking place.....”

On the other hand, the lead IK custodian, Manyasi (2015) explained that there is evidence of the footmarks of one of the high priest of the Bukusu (diviner) called Mulia. According to Manyasi (2015), *Sikele sia Mulia* refers to the mythology and history of the Bukusu high priest Mulia, whose footmarks are visible to date on a rocky hill in Bungoma County which is a tourist attraction centre. He states, “ *Mulia. Omungosi we Babukusu atiba omulamu, engila niyo achilamo efwanana bulayi bwene nende niyo Elicha we Mubaible chilamo. Nekhali, niye kalekah simanyisilo siewe. Khukhwola luno luri, sikele siewe sisibonekha khulwanda lwa Mulia.....*” “the man, like the Biblical Elijah vanished into nothingness but unlike Elijah, his footprints are there today even for scholars to confirm or disapprove the myth.”

The custodians also mentions Sayoni (Zion), a holy place on the peak of Mt. Elgon where the the *Dini ya Musambwa* (traditional religion associated with the struggle against colonialism and post independent oppression that characterized the independent Kenyan government) priests retreated to for several days in prayer to

their god. Manyasi (2016) says, “*Sayoni abuntu arie musikulu sia Masaba niyo babantu befwe, bang’osi be tini ya musambwa besayilanga Wele Khabumbi khukhwama khusimachamacha.....*” This is a sacred place which only high priests are allowed to visit for purposes of worshiping and communicating with the creator, Wele Khabumbi. Finally the IK specialist explains another phenomenon, *Estabicha*. Accordingly, *Estabicha* refers to a specialized and sacred cultural place where circumcision initiates are taken at dawn to be smeared with cold mud before being walked home naked to face the knife. It is from *estabicha* that the sacred song *sioyo* is sung as the boy(s) for circumcision are nakedly herded home to face the knife. The custodian explains “*estabicha abuntu wekhuukia. Ali ne litosi lilirokaroka kumwaka kwe sikhebo na lioma musikumenya. Estabicha niyo balonga basinte nebacha khukhebwa.....*” It is noteworthy that *estabicha* only becomes wet and swampy during even years (circumcision year) but dries up during odd years.

4.6 Contributions of Indigenous Knowledge Programmes to Socio-Economic Development

The researcher wanted to establish how West FM IK programmes have contributed to socio-economic development of the local communities. He sought from the respondents indicators that West FM IK programmes have contributed to socio-economic well being of the listenership communities. The following results were obtained:

4.6.1 Indicators of Social Development

Indigenous knowledge is a social phenomenon and it was important to determine aspects of IK that underpin social transformation. From table 4.4, various areas in which IK has contributed in their transformation are illustrated. In their response, 15% respondents cited family values as an area that has greatly benefitted from West FM IK programmes while 10% indicated that the programmes have contributed to sustainable tenets of family planning. Peace in society was pointed out by 13% of the respondents, 10% stated that the IK programmes strengthened cultural values, while a further 10% indicated that research activities in local IK have increased. On the other hand, healthy living and alternative medicine as areas that have been given an upward thrust by the IK programmes were each suggested by 5% of the respondents.

Finally, local language is deemed to be a sector that has benefitted from indigenous knowledge. This was supported by 10% of the respondents. Indeed, the IK programmes sometimes concentrates on local language vocabulary and phraseology that amazes the youthful constituency of audience. From this pattern of response, it is clear that IK affects almost every facet of society and that the various social aspects are mutually interrelated and therefore impact each other.

Table 4.4: Indicators of Social Development

Indicator	Response Rate
Family Values	15%
Family Planning	10%
Peace in Society	13%
Cultural Values	10%
Healthy Living	5%
Alternative Medicine	5%
Research	10%
Local Language	10%

Source: Field Data (2016).

4.6.2 Indicators of Economic Development

To be in sync with the study topic, it was necessary for the researcher to establish areas that the IK programmes have economically impacted. To do this, the researcher asked for indicators of economic development. From the illustration in table 4.5, the response shows a strong indication of agriculture (30%) and food security (30%) as sectors that have flourished as a result of West FM IK programmes. This is probably due to the fact that most of the time the IK custodians lays emphasis on making proper use of land to avoid hunger related catastrophes. Environmental conservation (15%) and self reliance (15%) respectively are other economic sectors that were mentioned as areas that IK programmes have been leveraged for development. The least economic sector that IK programmes have been applied for the benefit of society is apprenticeship at 10%. This is an area in which most young people with

minimum or no education have been encouraged to look beyond formal learning and embrace life through practical approaches. Indeed, many young people of this calibre have made breakthroughs in life through farming, carpentry, pottery, basket making and related occupations that require natural skills and competencies but with slight direction from those who know (elders).

Table 4.5: Indicators of Economic Development

Indicator	Response Rate
Agriculture	30%
Environment	15%
Apprenticeship	10%
Food Security	30%
Self Reliance	15%

Source: Field Data (2016).

To corroborate the data generated through questionnaires, the researcher sought the opinion of Mzee Kakai (2015) over the value of indigenous knowledge as disseminated by West FM. The old man calmly smiled and explained, *“Indeed, the West FM IK programmes are a constant reminder of our good old days in which there were fewer diseases and limited death occurrences. There was discipline and high morality. We ate wild fruits and routes, we cultivated and ate traditional foods staffs such as millet and yams and drank natural beer.....He then broke into a song,... ‘Balebe, bintu bichenchanga silo ne kumuusi. Haa bintu bichenga silo ne kumusi (X2’).....meaning, things changes day and night.* He then elaborates,

‘unfortunately, things have changed, people are dying left right and centre, there is no discipline among the youth, neither do they respect the elderly, they do not like work but want to eat, they have no future..... people are eating and drinking carelessly.....West FM has done quite a lot in reawakening our society about our identity, morals, eating habits and lifestyles.....why are families breaking down? Why are men not fulfilling their marital duties? Why are wives not respecting their husbands? Why do we have increased family conflicts? Because of abandoning our traditional knowledge.....lets us listen to what the IK radio sessions have for us, we stand to benefit a lot....’

The issues that Mzee Kakai points out as important outcomes of West FM IK programmes are character building among the youth, inculcating cultural and moral values to the society in general and youths in particular. Besides, society is encouraged to grow short term maturing food crops to avert famine and hunger (food security) and also observe good eating habits for healthy living..njjnm This resonates well with Rodney (1972) on self-discipline and individual expansion advocacy.

Through the lessons learnt from the knowledge transmitted, immorality is frowned upon by society; deviant behaviour such as infidelity is highly castigated as an anti-social behavior. Within family circles, stability is a by product of IK through West FM in that the ethos of family stability, being a precursor or foundation to the stability of the society and the nation in general cannot be overemphasized. Men are reminded to be responsible husbands in not only providing for the families but also

ensuring that their wives' conjugal rights are observed to the letter. In the same breathe, women are reminded to respect their husbands and obediently attend to them. To strengthen the marriage and family institutions, morality is emphasized; uprightness, respect, love among other society mores are unpackaged for application by individuals This tends to lead to decreased family conflicts. Therefore, a society with minimum family wrangles is one that develops socially and economically since all their energies are exerted towards achieving the society's wellbeing.

The social economic aspects of development explained in the foregoing paragraphs are in tandem with Walter Rodney's views bout development. According to Rodney (1972), development at the level of individual implies increased skills and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being, while development at the level of social groups, implies an increased capacity to regulate both internal and external relationships. Therefore, increased skills, capacity, creativity among other constructs of development are products of acquired knowledge, in this case indigenious knowledge that the West FM has belabored and sustained for over a decade to make sure its audience is on the right side of development. As such, development does not take place in a vacuum; it does so in a society made up of people that comprise men and women, the young and the old. Therefore, this phenomenon can best be understood from both social cultural and social economic paradigms.

4.6.3 General Contributions of Indigenous Knowledge Programmes to Society.

The researcher wanted to find out the contributions that the IK programmes have had on society since inception to the time of study. The responses were varied: 22% mentioned initiation as an area that West FM IK programmes have impacted on. This is because unlike the pre transmission of IK programmes era where circumcision was even forced upon communities which do not practice it, it is no longer the case. This indicates that the local communities have changed their perceptions as stated by 12% of the respondents and attitudes towards other communities that do not share the practice (10%). A further 22% stated that the programmes had impacted on health issues. This is owed to the fact that there are themes that emphasizes the use of traditional foods whose food value to a person is better than the junk food that majority of the contemporary people feed on. On the other hand, 24% of the respondents stated that the IK programmes had had an impact on agricultural practices. This is due to emphasis placed on early preparation of the land for planting, crop rotation and growing crops that are drought resistant and matures fast, practices that are being actualized. As averred by 25% of the respondents, matters of education are another integral area that IK has impacted. Most of the respondents mentioned culture and community development as areas that have benefitted from the IK programmes with culture being supported by 38% and community development 37% respectively. The results are as presented in table 4.6:

Table 4.6: General Contributions of Indigenous Knowledge to Society.

Impact Indicator	Response Rate
Initiation	22%
Health	22%
Agriculture	24%
Education	24%
Cultural issues	38%
Community transformation	37%
Attitude	12%
Perceptions	10%

Source: Field Data (2015)

From the above response, IK is appreciated as an important source of holistic education and knowledge for development, which is underpinned by benefits such as improved agriculture, education, and health issues all of which aggregates to community development. Thus, IK is a very important branch of knowledge that is for the general good of the individual and society. All these total up to holistic development of humanity. No wonder, Tenya (2015) asserted that indigenous knowledge is an important natural resource that can facilitate the development process in a cost effective, participatory, and sustainable ways. Therefore, embers of development are not only stroked by scientific and technical knowledge but also IK systems that support the survival of local communities and innovations at grassroots levels.

Consequently, this confirms Rodney (1972) theory on development; that development should be used in exclusive economic sense. That as society develops

economically; its members increases jointly their capacity for dealing with the environment. He adds that the capacity for dealing with the environment is dependent on the extent to which they understand the laws of nature (science), on the extent to which they put that understanding into practice by devising tools (technology), and on the manner in which work is organized. What Rodney emphasizes here is the issue of empowerment; with the right skills and competencies to exploit environment for mankind's benefit, society and therefore the country is said to be developed. Therefore IK as advocated by West FM spurs the audience into economic activities that focus on improving their living standards.

From the qualitative data as collected from interviews, it was realized that more and more people are attracted to West FM because of its indigenous knowledge programmes. Thus the programmes have made the station more popular than the case was hitherto.. Omuchuma (2015) states, "*Kumwinda kwa West FM kulera limanya mubantu befwe, kung'ona lulomo lwefwe, kwayeta chingoba chiefwe khukhwima, kungon'ona kimima, kwabombia bueyani, kuyetakhurera kumulembe akarikari wefwe nende basiangoyo befwe nga Baybo ne Batesio ...khukario, kuli nende barekeeresia bakali...*"

The translation of the above voice reads "*The West FM Radio has brought about enlightenment and knowledge to our people; it has improved skills and competencies in our indigenous language, improved family stability, morality and peaceful coexistence with our neighbours such as the Sabaot and Teso and therefore attracts a lot of audience.....*"

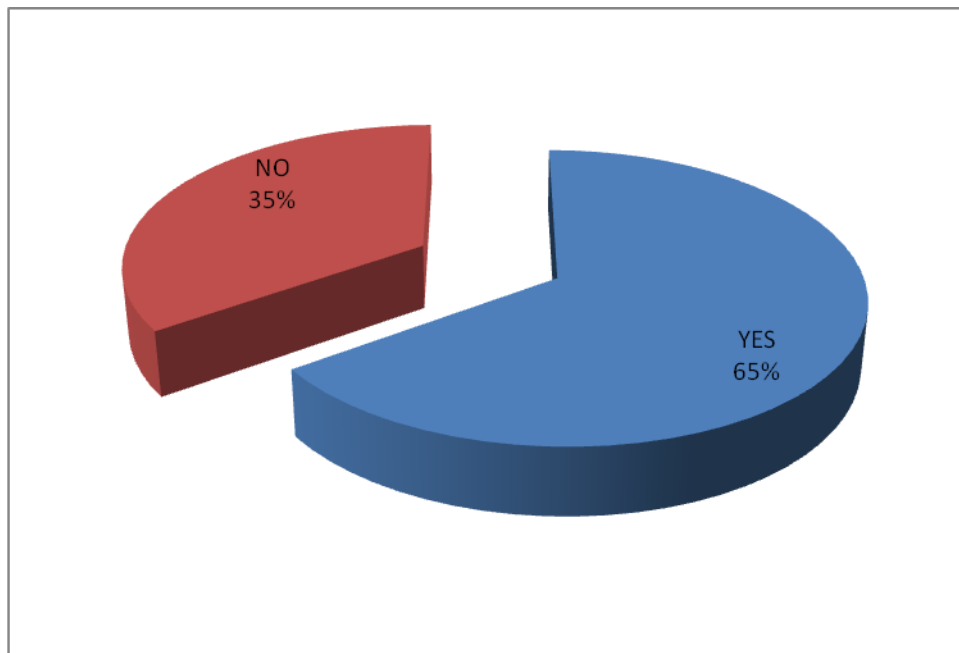
Language promotion and growth is another area where IK is leveraged and has had a significant impact. Indigenous languages stand cushioned against pollution from modernity and globalization fever. The grammar and vocabulary taught through these programmes ensures that local languages do not disappear and are appreciated by the youth who are the likely casualties of globalization.

Further, the audience is made aware of other peoples and their own cultural practices through community rites such as those reserved for heroes only such as *khukhala kimikoye*, a rite performed in honour of the spirits of the elderly who were recognized because of the families they have molded and left behind. Though the church frowns to some practices which are deemed to be backward, it also appreciates those practices that epitomizes dignity and decorum such as acceptable dress codes, stable families among others. This is courtesy of the West FM Indigenous Knowledge programmes.

Perhaps the greatest impact as explained by Omuchuma (2015) is improved family stability and morality in society. Accordingly, there have been reduced family conflicts among the audience of the programme. Because of constant messages against immoral behavior, the practice is also less prevalent. Added to this is the semblance of peace between communities which were hitherto belligerents or enemies such as between the Bukusu, Teso and the Sabaot

4.7 Challenges Encountered in the Dissemination of Indigenous Knowledge

One of the objectives of the study was to find out the challenges facing indigenous knowledge dissemination. To begin with, the researcher asked the respondents to state if there are challenges. From figure 4.21, though about a quarter (35%) of the respondents indicated that there were little or no challenges, the majority of them (65%) strongly stated that there were challenges.



Sources: Field Data (2015)

Figure 4.21: Prevalence of Challenges to Dissemination of Indigenous Knowledge

The researcher then sought to know the particular challenges. In response, 10% of the respondents complained that the language used to disseminate IK is discriminatory, that, in a cosmopolitan coverage environment, only one language is frequently utilized. This alienates other communities from the ownership of the IK

disseminated. Some members of the audience added complex vocabulary and idioms as a challenge. Juma (2015), a Kibabii University student lamented, *“much of the vocabulary used by the custodians can only be understood by elderly audience. We the youth are made to float despite keenly following the programmes.....unless one has a dictionary or gets an interpreter or a translator, the processes becomes an exercise in futility.....”*; incidentally, there is no dictionary to give synonyms and explanations regarding complex terminologies Therefore language barrier is a major bottleneck that needs redress as a matter of urgency. Indeed, this is a grey area that West FM has to address to strike ethnic balance and to make its programmes more acceptable to a larger community of audience

On the other hand, 5% of the respondents stated that coverage and scope was an issue of contestation. First of all, not everybody in the topographies of the study listens to radio and even if they were to listen, there is no guarantee that everybody would tune in to the programme. A Pokot elder, Lokorio (2015), lamented bitterly, *“the IK disseminated seems only to target particular cultures at the expense of other integral cultures, we are not effectively represented in the programmes yet we are in an area penetrated by West FM airwaves.”* . This indicates that not all communities in the listenership topographies are catered for in the radio IK programmes. An ardent follower of the programme, Wafula (2015) avered, *“the programmes are beneficial but sometimes suffers the disease of exaggerations and repetitions”*. Such practices tend to kill interest of listening to the Programme. As such, many listeners may not be adequately benefitting from the programmes.

Despite the fact that the programmes are of crucial importance, 10% of the respondents complained about the programme scheduling being inadequate. That IK programmes are only transmitted on two days (weekend afternoons) in which only two hours are used per day to get engaged in indigenous knowledge matters.

Further, well intentioned as the programmes are 2% of the respondents stated that the radio station does not have adequate staff in IK matters to reach more people and in terms of research on IK. IK is not a fulltime responsibility of journalists; their core business is gathering news. Therefore, IK is not given the treatment that it deserves at discovery, mining, harvesting packaging, repackaging and dissemination levels. This is also the case with the IK custodians; they are not only few but are also aged making them prone to memory loss and unnecessary repetition of issues. The situation is exasperated by the fact that the custodians only operate on part time basis. Further to this, the custodians are driven by self-motivation and interest to impart knowledge; they have not undergone any formal training to teach and communicate IK. This partly affects the quality level of dissemination.

On the other hand, funding is a hurdle. This was pointed out by 3% of the respondents. It was also confirmed by the IK custodians who were categorical that the programme has no sponsorship to propel it to greater heights but rather depends on the goodwill of West FM management. In other words, the stipend issues, upkeep of the custodians in terms of travelling and feeding expenses are purely the responsibility of West FM, yet IK is not West FM's core business. This may impact negatively on sustainability of the programmes.

It was also realized from 5% of the respondents that attitude is a deterrent to effective dissemination of IK by West FM. Some members of the population interviewed also indicated that sometimes IK custodians are politely but highly opinionated and this hampers the free spirit of participating in the IK discussions. Related to this is the attitude emanating from the tribal angle that manifests itself in the lack of interest in other peoples IK. Juxtaposed with this aspect is the western culture and or some modernity prejudiced youth who view their IK as being inadequate, backward and unfit for the contemporary world and therefore would prefer listening to pop music, sex lased programmes or talks and or watch romantic movies as opposed to listening to West FM IK programmes.

Besides, Indigenous knowledge systems in Kenya and particularly in the study area are disappearing fast as a result of the rapid changes occurring from imported economic, cultural and political development models through globalization as stated by 7% of the respondents. The World Bank (1998) underscores this reality by observing that Indigenous knowledge is always passed by word of mouth from one generation to another. Many of the bearers of indigenous knowledge are from the older generation and now find it difficult to communicate their beliefs and practices to the scientifically educated younger generation; once the older generation passes away, the knowledge disappears with them.

Sustainability of the programme may be another challenge. No tangible plans have been put afoot for transition and programme continuity. In case of death of a knowledge custodian, the whole granary of knowledge goes into the grave with the

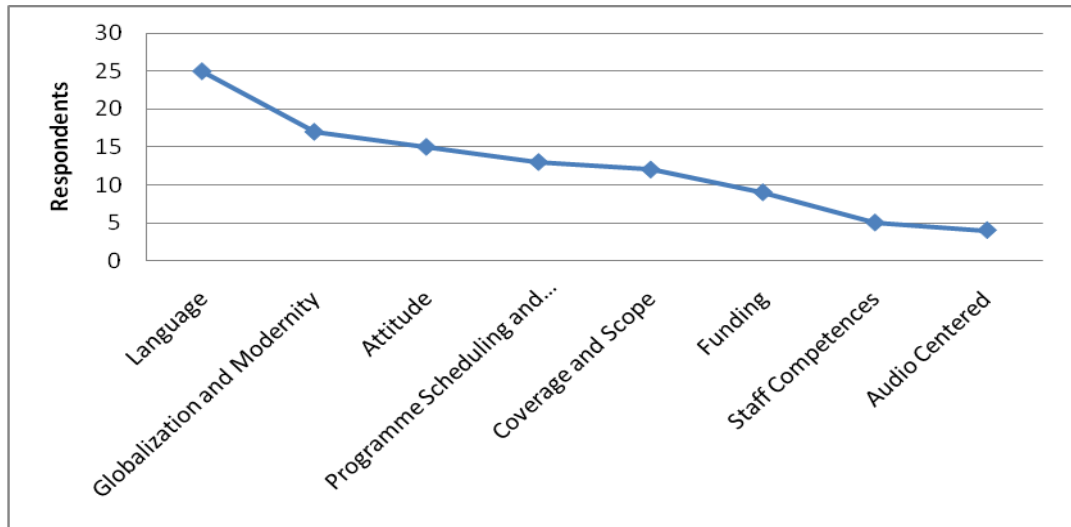
dead person. This is probably why West FM makes use of the same IK custodians for all the IK programmes mounted on Saturdays and Sundays. This is real danger that requires urgent remedy.

.Likewise, despite the youth being a key component of the West FM audience, the IK programmes favour family or married people and other social issues, giving a negligible attention to the youth. The youth's concern is that the programmes do not adequately cater for them. They argue that some topics discussed may be quite embarrassing and cause discomfort to the children and therefore alienates the would be listeners of the programmes.

West FM seem not to have made its programmes visible to all communities, it therefore may have to do aggressive marketing to attract far flanked audiences like the Pokot , the Nandi and other minority groups to effectively make use of the station in engaging their peoples on matters of indigenous knowledge.

More so, as pointed out by 1% of the respondents, the programmes are only audio (radio driven). This limits the transmission only to audio categories and components of IK. For example physical performance and dance are missed out in a folk song transmitted through radio This makes it less attractive and difficult to internalize many issues of importance. Perhaps if the same programmes were mounted in the West TV that has a sizeable number of viewers, the objective of the programme will be met with ease. More still, radio programmes deals with a variety of IK issues,

many components of IK such as rituals, ceremonies, artifacts are not captured in the radio transmission. The challenges are as illustrated in figure 4.22.



Source: Field Data (2015)

Figure 4.22: Challenges faced by Wrest FM Radio in Dissemination of Indigenous Knowledge

It is also important to point out the fact that IK is a community property and therefore communally owned. West FM does not own the IK that it transmits. There is no evidence of formal contracts with the communities regarding dissemination of IK. This raises ownership and intellectual property questions that the radio station has to content with in case of legal action being preferred against it.

From the custodian point of view, there exist intellectual dishonesty; some senior scholars have exploited their IK expertise at the radio station without appreciation. Even though they promise to do so, they do not, leave alone even picking calls made by the custodians. This makes them feel used and dumped.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes integral issues as established in the entire study and also makes relevant conclusions and recommendations based on policy, best practice framework and further research. These are as derived from the purpose, objectives and research questions of the study. The purpose of the study was to evaluate IK dissemination practices by the West FM Radio Station for socio-economic development of diverse communities in Western Kenya and suggest interventions in areas established to be performing below par. The objectives comprised determining listenership levels of West FM IK programmes, evaluating indigenous knowledge domains and practices in western Kenya, assessing programmes and media used by West FM for disseminating IK, establishing contributions made by West FM IK programmes on socio-economic development of the local communities and finding out the challenges encountered in the dissemination of IK by west FM. The Research Questions that guided the researcher to interrogate the objectives of the study included:

- i) What are the listenership levels of West FM indigenous knowledge programmes?
- ii) What are the indigenous knowledge domains and practices found in Western Kenya?
- iii) Which are the programmes and tools applied by West FM in disseminating indigenous knowledge?

- iv) What are the indigenous knowledge domains and practices disseminated by West FM radio?
- v) In which ways do the West FM indigenous knowledge programmes address socio-economic development needs of the local communities?
- vi) What are the challenges faced by West FM in its endeavors to disseminate indigenous knowledge?

With regard to methodology, purposive sampling was used in identifying staff to be interviewed while stratified sampling was used to categorize the two strata of respondents (the staff and audience) of West FM. Since the target population was not homogeneous, systematic random sampling was applied in the study to determine the respondents from the listenership stratum. Multiple data collection methods comprising both primary and secondary data such as documentary review, face to face interview, telephone interview, observations and content analysis were applied. A pilot study on respondents in another radio station Nyota FM (based in Bungoma) town was undertaken to give baseline information for improvement on different aspects of methodology. The research instruments were pre tested in the pilot centre to determine validity. The Cronbach's alpha reliability estimate was used to measure the internal consistency of data collected. Finally, thematic and explanatory data analysis approach was used to analyze data.

5.2 Summary

The following are the issues established by the study:

5.2.1 Listenership Levels

There exists overwhelming gender disparity in the station IK programme presentation. Gender participation in the IK programmes is higher for men (64%) as compared to women (36%). Community demands, practices, taboos, and beliefs alienate women from full throttle involvement in the society's IK issues. Besides, the socialization of women seems to set them apart for certain roles leaving others to their male counterparts.

In terms of listenership distribution per county, Bungoma had the highest percentage (26%) followed by Kakamega (22%). Busia is equally a bedrock of West FM radio listeners at 21%. Vihiga had 11% of the radio listeners while Trans-Nzoia and Uasin Gishu posted 10% each in terms of listeners. The least county of listeners was West Pokot at 7%.

Regarding age, the majority of the listeners were the youth distributed as those below 25 years (20%), 26-35 (32%) and 36-45 at 23%. Consequently a whopping 81% of the listeners of the IK programmes are the youth motivated by the desire to know what they did not learn at school. The remaining 19% comprised the elderly who were 46 years and above.

The Media Council of Kenya (2011), in its study on performance of vernacular radio stations concurs with this by concluding that Women were clearly underrepresented in the radio programmes

5.2.2 Understanding of Indigenous Knowledge

Indigenous knowledge is understood and perceived differently by the residents of the locale of the study. There were those who equated indigenous Knowledge to traditional knowledge (57%), culture (38%), society education (27%), community information (27%), and oral traditions (22%) respectively.

5.2.3 Indigenous Knowledge Domains and Practices Disseminated by West FM Radio

Though there are many IK domains and practices disseminated through West FM IK programmes, the main domains and practices disseminated comprise cultural education (55%) moral issues (34%), society history (30%) and agriculture at 32%,. Others are health (27%) and apprenticeship at 16%. Key issues embedded in these aspects of IK are customs, laws, taboos, ideology, language, technology and beliefs.

5.2.4 West FM Radio Programmes for Dissemination of Indigenous Knowledge

West FM Radio station makes use of four programmes to disseminate IK. Accordingly, the *Lumasaba programme* (derived from dialect that is understood by all Luyia speaking peoples) is the most popular programme as pointed out by 43 % of the listeners followed by *litungu* (42%). in which cultural talk shows are hosted. The programme name ‘litungu’ is derived from a traditional musical instrument (three stringed guitar). ., *Kipindi cha watoto* (a Kiswahili children’s programme) is the least programme listened to since its audience are children and it only features once per week.

5.2.5 Inadequacy of Indigenous Knowledge Programmes

Though IK programmes are frequently scheduled as pointed out by 60% of the listeners, they do not adequately cater for all actual and potential audience in the West FM listenership topographies as indicated by 70% of the listeners. Also the content and language employed in the dissemination are skewed towards one ethnic community to the disappointment of other communities that could equally benefit from the programme. This situation applies to the *Lumasaba and Litungu* IK programmes in which emphasis seem to be on the IK pertaining to one community whose dialect is incidentally used for dissemination. From this basis, West FM

indigenous knowledge programme does not seem to cater for all the communities in its listenership topographies, an inadequacy that requires immediate remedy.

5.2.6 Inadequacy of Language used in Disseminating Indigenous Knowledge

While the indigenous knowledge programmes are well intentioned, and have positively contributed to society, the language used in its disseminating changes the success narrative. It is common knowledge that the West FM coverage area is made up of multi ethnic communities yet, ironically, *Lubukusu* or *Kibukusu* is the predominantly used language or dialect to disseminate IK. The *Lubukusu* used limits the programme only to those who understand and are keen to use the language at the expense of others. This denies other communities the opportunity to practice the dissemination of their IK, a situation that makes them feel excluded by the radio station.

5.2.7 Media applied in the Dissemination of Indigenous Knowledge

Radio usage is outstanding. The majority of the listeners (31%) use portable radios to listen and participate in the IK programmes. This is replicated in work environment whether on farms, livestock herding, or transport sector such as the *matatu* or *bodaboda* which are fitted with FM radios for purposes of listening to significant programmes of IK.

There are other media applied in the dissemination of IK. They include mobile telephony (24%), print media (18%) internet and related media (18%), and others

that are exploited by both the radio and the listeners in disseminating and listening to IK programmes

5.2.8 West FM and Dissemination of Indigenous Knowledge

As affirmed by 60% of listeners, West FM Radio heavily rely on IK custodians in running the IK programmes and therefore dissemination of IK. The staff of West FM radio also participates in the dissemination of IK. This was supported by 20% of the listeners. Information communication technologies and related media are also applied in the dissemination of IK. This was confirmed by 10% of the listeners.

5.2.9 Sources of Indigenous Knowledge Disseminated by West FM Radio

The West FM Radio station acquires the IK it disseminates from a variety of sources which include but not limited to field visits by journalists (10%) from interviewing opinion leaders (25%) and community elders (34%). Other sources are cultural ceremonies (15%), festivals (17% and spiritual leaders (30%),. Other sources are libraries and archives (17%) and different radio stations (5%) established in the regions under study.

5.2.10. Policy Frame Work

Though indigenous knowledge is mentioned in the bill of rights in the constitution of Kenya 2010, 60% of the listeners decried the fact that there is no comprehensive legislative and clear policy framework to underpin the management of IK both at

West FM Radio and the national levels. The potential components to be factored in the policy if it were to be formulated include legislative framework (16%), language (25%), coverage (15%), content (15%) and staffing levels (20%).

5.2.11 Alternative Channels of Disseminating Indigenous Knowledge

The researcher established that besides the radio station, there are other means of disseminating IK that include individual traditional festivities, beer parties, community practices such as circumcision, marriage, funeral rites and other cultural festivals. All these fora provide opportunities for people to interact and share knowledge. This resonates well with Crossari's model (1999) as cited by Dakir (2005) which postulates that individual knowledge acquisition is fundamentally sound process, something that cannot occur without some form of interaction. Thus individuals learn from the collective and collective learn from the individual.

5.2.12 Indigenous Knowledge Indicators of Social Development

Issues relevant to contemporary education for both school and tertiary levels are shared; Historical, cultural teachings and practices are sensitized to all and sundry to keep abreast of their history and culture; Among the indicators are acceptable moral behavior, family values (15%), and family planning 10% which are espoused resulting into family stability, Healthy living and alternative medicine (8%); are among the various and several themes affecting development that are propagated and shared through the West FM radio station.

The programmes cater for children and youth development. Parents are sensitized on acceptable ways of bringing up children with emphasis is put on ethical behavior. That parents should play a proactive role in ensuring that their children adhere to acceptable behavior in life is not in doubt; issues such as hard work, self reliance, honesty and morality features prominently

5.2.13 Indigenous Knowledge Indicators of Economic Development

The study found out that through West FM IK programmes many facets of society that affects economic development are dealt with: Sustainable agriculture (30%) and food security (30%) practices to make society safe from famine and hunger are in calculated into the listeners. Environmental conservation was yet another area benefitting from IK as pointed out by 15% of the respondents, followed by another 15% for self reliance and 10% of listeners mentioning apprenticeship as another area that IK has positively contributed to. Apprenticeship entails the knowhow of life. Young people spent time with elders and or *jua kali* (artisans) masters to learn ropes of survival such as blacksmithing, construction, and medicines among other traditional professions.

5.2.14 General Contributions of Indigenous Knowledge Programmes

It is important to note that the contributions being pointed out were drawn from the time the IK programmes were incepted to the time of the study (2007-2015). 'IK as disseminated by West FM has had positive contributions on family institutions since

emphasis is put on fidelity, morality, responsibility and honesty as key pillars of stable families. Besides, IK dissemination has resulted into improved livelihoods (37%) because society has learnt to get engaged into agricultural practices that entail drought resistant crops making hunger and famine non-issues. Such practices take cognizance of the need to conserve environment. This is as a result of improved agricultural productivity and food security through programmes such as *mkulima bora (successful farmer)* that blends both IK with the western or modern practices. This is equally the case for alternative medicine which most community members use in addition to conventional medicines. The sum total of these practices is improved livelihoods.

The other bi-products of disseminating IK by the radio station are enlightened citizenry and peaceful coexistence. Holistically, IK has positively impacted life of the listenership constituency that has become more enlightened in cross cutting issues of life such as history, health (22%), education (25%) and culture (38%), agriculture (24%) changed perceptions about other communities, (12%), positive attitude to IK practices (12%) and a host of other contributions.. Other areas that were qualitatively gleaned include ethical issues, leadership, morality and a host of other areas. It is noteworthy that these knowledge components are not acquired in formal settings such as schools and colleges but through informal and or non-formal settings.

One of the most far reaching consequences that the programme has had on the audience in general is the multiplier effect with which similar radio programmes have mushroomed either out of sheer competition or in attempt to compliment the efforts of West FM. Other radio stations such as Nyota FM Radio (opposite West FM in Bungoma town), Radio Mambo at Webuye, APK in Mt Elgon (Kapsokwony), Masinde Muliro University FM in Kakamega, among other stations have developed similar IK programmes to fill the language gap and inclusiveness in sharing and dissemination of indigenous knowledge. However, West FM is credited for having heralded the scheduling of IK programme.

5.3 Conclusions

Based on the objectives of the study, the following conclusions are made: Despite the challenges associated with the programme, West FM has made positive contributions to the wellbeing of society. Among the areas that the station has contributed positively to society through its IK programmes are, but not limited to society acceptable moral behavior, family stability and values, intra and inter-ethnic relationships, creating awareness about communities' historical backgrounds and cultures, enlightened society, agriculture, food and general security matters. The programmes have also led to change of attitude among the youth about their culture against a background of globalization that seems to have little space for traditional ways of living.

Secondly, in shaping the development agenda for Kenya and in order for the country to address its development challenges, especially eradication of poverty, it is imperative that indigenous knowledge is integrated in the development process. Special efforts are therefore, needed to understand, document and disseminate IK for preservation, transfer, sharing and dissemination for adoption and adaptation in the development of the entire country.

Investing in what local communities know and have in terms of indigenous practice, will therefore help the government and policy makers in particular leverage upon those practices for national socio economic development. Last but not the least, Indigenous Knowledge systems in Kenya not only need protection and documentation, but also needs to be studied, and be disseminated for the social economic wellbeing of society.

Finally, the findings of this study, if put into practical use, not only opens new frontiers in the body of knowledge but also stimulates further research and contribute to holistic development of the area under study and Kenya in general. In addition, the study forms a basis for policy makers in the development and formulation of IK policies.

However, although West FM IK programmes have made positive contributions in some socio economic areas such as culture and society morals, there was low impact on Agriculture and Health. Secondly, West FM IK programmes market penetration is sporadic. Thirdly, given the finding that language used was complex and belonged

to one ethnic community at the expense of other communities, IK dissemination and uptake was affected by low the language used and inadequate languageskills. Lastly, the biggest setback to IK programmes is lack of policy framework and legislation to inform and regulate IK systems and practices.

5.4 Recommendations

In this subsection, various interventions are recommended to address the several challenges encountered in the dissemination of IK in general but by West FM in particular. The recommendations are based on the challenges pointed out in the study and above all, the objectives of the study. The recommendations made are categorized according to policy, practices, interventions and further research.

5.4.1. Policy Recommendations

- (i) There is need for a comprehensive national legislative and policy framework to streamline the management of indigenous knowledge in the country. The policy should also be clear on what comprises indigenous knowledge, ownership and penalties for violating ownership rights.

Likewise, the management of West FM needs to enhance and or develop an in-house policy on IK issues such as, coverage, content and programming. For example, there should be a policy on language that caters for all listeners so as to avoid complaints of exclusion. Each language community in the coverage area should be scheduled to have its IK broadcasted in its local language to enable them effectively engage their listeners in their IK.. In

other words, the station should disseminate IK using a variety of languages as per the ethnic distribution in the study area.

Besides, the policy should be clear on complexity of language used.. In other words, the policy should provide for use of language that is less complex in terms of terminology and phraseology. Where possible, complex terminologies should either be simplified or translated for ease of understanding. In addition, the policy should provide for structured translation and interpretation interventions such as development of tools like IK thesauri and dictionaries to enable clarity and understanding of any local community IK (meanings, pronunciations and use of given terminologies) by the audience more especially the youth. This is not only a West FM radio but also a matter of national concern on IK

More so, there needs to be spelled out in the policy, the nature of language to be used regardless of whether official or vernacular. The language used should be friendly to all categories of audience regardless of age or ethnic background; it should not be vulgar or embarrassing as perceived by some sections of the listenership. In cases where little can be done on the vulgarity of language, such IK programmes should be mounted when children are asleep.

- (iii) As a matter of policy, West FM should not only seek to expand its frequencies to cover a national and global constituency of listeners but also

allocate more airtime to IK related programmes so that those who miss out during weekends may catch up later during playback or live discussions.

- (iv) The station's policy on Indigenous Knowledge should be updated to take cognizance of the unity in diversity of the peoples of Western Kenya and the North Rift. The policy should make provisions for an all-inclusive indigenous knowledge dissemination programmes that caters for all the actual and potential audience of the station particularly in the study location.

5.4.2 Nonexistent Policy on Research

- (i) Though the station engages in activities of harvesting and disseminating indigenous knowledge, there seems to be little effort to operationalize research as much of its IK is custodian and therefore oral based. There exist no policy on research, therefore the station should consider developing a policy on Indigenous Knowledge and create a full-fledged IK research division that will undertake research on issues regarding IK and ensure that they are appropriately harvested, organized and disseminated to the intended audience. Such a division should be backed up with intra and inter ethnic lingual experts for purposes of translation to ensure that everybody is brought on board.

In this regard, this study recommends that the first area of research should be developing dictionaries and thesauri of vocabulary of IK in the various ethnic communities of the West FM listenership topographies.

5.4.3 Recommendations on Practices and Specific Interventions.

- (i) Regarding monotony of emphasis on culture and family issues, it is recommended that the station harness and disseminate IK in diversified areas, where possible bring on board other IK custodians who may be experts in new fields to give the programme a taste of freshness and variety.
- (ii) The IK custodians should nurture the youth in these programmes for purposes of succession management and transition in the IK field to avoid likely vacuum in case of demise of existing custodian(s).
- (iii) To counter competing forces such as other radio stations, the West FM IK department should diversify the media of dissemination; rather than over rely on the radio frequencies, it should make use of television and other methodologies of presentations to create more impact to its audience since the greatest percentage of learning is by seeing as opposed to listening.
- (iv). Deliberate efforts should be made by West FM to popularize IK programmes and seek alternative modes of dissemination such as *chief's barazas*, community functions such as music festivals, cultural days or weeks through which IK specialists can talk IK to the audience, and make extensive use of social media to transmit IK.
- (v) IK programmes should take cognizance of gender parity and integrate all in its sessions. It is high time that IK expertise at the radio station adhered to

gender parity with little or no regard to male chauvinism which seem to have disenfranchised women the right of practicing their indigenous knowledge.

- (vi) Workshops, conferences and seminars provide good opportunities to disseminate IK. To retool IK experts and presenters, seminars and workshops should be organized for them so that issues such as methodology and content management and delivery skills are imparted to them to make them more effective in their work
- (vii) West FM should avoid relying on theoretical studio talk shows to disseminate IK; it should back up the programmes by initiating field visits and road shows by experts targeting specific segments and functions of society for purposes of harnessing and disseminating IK. Such field visits and road shows should target the youth, women, families, the disadvantaged, farmers, and business people among others. Participating in community functions such as funeral, circumcision ceremonies and music festivals among others is also encouraged as a means of disseminating IK.

As holders of indigenous knowledge, indigenous people have the right to be consulted and be fully involved in making decisions that affect their knowledge and livelihoods. As posited by Maina (2009), there is therefore need for West FM to directly engage and elicit the views of indigenous people of the study area.

- (viii) IK programmes should not be packaged as if they are there to compete or replace Christianity and globalization which are life realities but as a complementary approach that blends with both Christianity and globalization whose broad objective is to make life bearable. As such, the station should strive to disseminate IK that is in tandem with the contemporary realities of life as opposed to taking an isolationist approach. The West FM should therefore seek to integrate IK and explicit knowledge with contemporary techno and social religious settings that cannot be wished away.

5.4.4 Challenges Based Recommendations

- (i) To address the challenge that some of the young people have negative attitude and prejudiced feelings over IK, West FM should seek for more resources to invest in aggressive campaigns and marketing of IK as a valuable resource for success in life. In fact, the youth should be involved in driving the process in order to attract the youth constituency.
- (ii) Though IK custodians are doing good work to ensure availability of indigenous knowledge, they are doing so entirely on voluntary basis; West FM engages them on part time basis with a paltry transport allowance. They lack motivation and therefore require full time engagement by the station or donor support to scale up the IK programmes. This is crucial especially if indigenous knowledge is to be safeguarded and made available for posterity through methodologies that ensure environmental preservation, survival of

indigenous languages and recognition of indigenous knowledge holders' rights to own and exploit the benefits of the same knowledge.

5.4.5 Recommendations for Further Research

- (i) Whereas this study narrowed itself on dissemination of indigenous knowledge in the context of West FM radio, further research should be done on matters of indigenous knowledge discovery and harvesting by media.
- (ii) Research should be undertaken on the role of information based organizations such as the Kenya Nation Library Services and the Kenya National Archives and Documentation Service with regard to the management of Indigenous knowledge.

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APPENDICES

**APPENDIX I: INTERVIEW SCHEDULE FOR WEST FM STAFF AND
KNOWLEDGE CUSTODIANS**

Your answers are confidential. You will remain anonymous.

Please Tick Where Appropriate

Section 1: Personal Bio Data

1. Age.....

2. Gender.....

3. What is your current designation in the organization?

.....
.....
.....

4. How long have you worked at the West FM Radio Station?

.....

Section 2: Indigenous Knowledge Domains

5). What do you understand by Indigenous Knowledge?

.....
.....

.....
.....
6). How is indigenous knowledge different from other information disseminated by West FM?

.....
.....
.....

7). what types/systems of indigenous knowledge does West FM disseminate to its audience?

.....
.....
.....

8). What are the sources of the above mentioned types of Indigenous Knowledge?

.....
.....
.....

Section 3: Indigenous Knowledge Practices

9). Explain how West FM performs the following Indigenous/Traditional Knowledge management practices

- i) Acquisition.....
- ii) Evaluation.....
- iii) Organization.....
- iii) Storage.....
- iv). Retrieval.....
- v) Sharing/Dissemination.....
- vi) Any other practices.....

Section 3: Policy Framework

10) i) Does West FM have an Indigenous/Traditional Knowledge management policy

Yes () No ()

ii) If yes, what are the major elements of the policy?

.....

.....

.....

.....

.....

- iii) In your opinion, does the policy cater for all indigenous knowledge issues and practices in western Kenya and the North Rift?

Explain your answer.....
.....
.....
.....

- iv) What improvement would you recommend for the institutional policy framework?

.....
.....
.....

Section 4 IK Management Resources

- 11. i) Apart from policy infrastructure what other infrastructure has the organization deployed for indigenous/traditional Knowledge management in the following categories?

- a) Human capital.....
- b) Technical infrastructure.....
- c) Institutional infrastructure.....
- d) Funding.....

e) Any other infrastructural element.....

ii) Explain any tools employed by West FM in the handling of the following
Indigenous/traditional Knowledge management practices

a) Capture.....

b) Organization.....

c) Storage.....

d) Authenticity.....

e) Sharing/Dissemination.....

f) Any other practices.....

Section 5: IK Programs

11) i) What programmes has West FM put in place for its IK management activities?

.....
.....
.....

ii). How often are IK programs mounted by West FM?

.....
.....

iii). Is the airtime allocated to IK adequate? Yes () No ()

Explain.....

.....

- iv) Do the Indigenous/traditional knowledge programs run by West FM adequately address all forms of traditional knowledge in Western Kenya and North Rift? Yes/No

Explain.....

.....

.....

- iii) In what languages are the IK programs conducted?

.....

.....

.....

.....

- iv). In your opinion, are the languages used in running IK programs representative of all the listenership communities?

Explain.....

.....

.....

.....

Section 6: Indigenous/Traditional Knowledge Audience

12) i) Who are the target audience for IK disseminated by West FM?

.....
.....

ii) Approximately how many listeners does West FM reach per IK program?

.....
.....

iii). Does the IK programs cater for all the communities in the West FM coverage area? Yes/No

Explain and suggest remedies.....

.....
.....

13) In your opinion, what are the possible benefits of Indigenous/Traditional Knowledge to the audience?

.....
.....
.....
.....

14) Is indigenous Knowledge disseminated by West FM well utilized? Yes/No?

Explain your answer.....

.....
.....

Section7: Dissemination: Success and Challenges

15) From your experience at West FM, what are the factors influencing dissemination of Indigenous/Traditional in Kenya?

.....
.....
.....

16) What achievements has West FM attained in its IK dissemination programmes?

.....
.....
.....
.....

17) What challenges does West FM experience in its activities of disseminating Indigenous/Traditional Knowledge?

.....
.....

.....
.....

Section 8: Best Practice Framework

18) What are your suggestions for improved dissemination and deployment of
Indigenous/Traditional Knowledge by media stations?

.....
.....
.....
.....

APPENDIX II: QUESTIONNAIRE FOR THE AUDIENCE OF WEST FM

Your answers are **confidential** .You will remain **anonymous**.

Please tick where appropriate

Personal Bio Data

1. Age

1	2	3	4	5
Below 25	26-35	36-45	46-55	Above 56

2. Gender

1	2
Male	Female

3. Which of the following county do you leave in?

a). Bungoma

b). Kakamega

c). Busia

d). Vihiga

e). Trans-Nzoia

f). Uasin Gishu

g) West Pokot

f). Any other, specify.....

4. For how long have you stayed in the county?

1	2	3	4	5
1-5years	5-10 years	10-15 years	15-20 years	Over 20 years

3. For how long have you been listening to West FM programs?

1	2	3	4	5
1-2years	2-4 years	4-6 years	6-8 years	Over years

4. Which of the following best describes your occupation?

- a) Teacher
- b) Doctor
- c) Pastor
- d) Priest
- e) Civil Servant
- f) Retired officer/senior citizen (please indicate profession)
- g) Parent

- h) Sooth sayer
- i) Community Knowledge Custodian
- j) Any other, please specify.....

Section 2: Indigenous Knowledge Systems

5. What is your understanding of Indigenous knowledge?

- a) Traditional knowledge
- b) Culture
- c) Society education
- d) Community Information
- e) Oral traditions
- f) Local Knowledge
- g) Others, (specify).....

6. What types of indigenous/traditional knowledge do you know about your community?

- a) Agriculture information
- b) Moral issues
- c) Societal History
- d) Health education
- e) Apprenticeship
- f) Cultural education
- g) Religion

h) Others, please specify.....

7. What are the types of Indigenous/Traditional Knowledge disseminated by West FM?

a) Agriculture information

b) Moral issues

c) Societal History

d) Health education

e) Apprenticeship

f) Cultural education

g) Religion

h) Others, please specify.....

Section 3: Indigenous Knowledge Dissemination Programs and Infrastructure

8) Are you aware of how West FM acquires Indigenous/Traditional Knowledge from the community? Yes () No ()

If Yes in above, explain

9) i) What programmes does West FM use to disseminate IK to the people of western Kenya and North Rift?

a) Using Lumasaba Program

b) Kipindi cha watoto

c) Cultural show talk

d) Others, specify.....

ii). How often are the IK related programs mounted by West FM?

a).Two hours Daily

b) Two hours, 6 days week

c) Two hours, 5 days a week

d) Two hours, 4 days a week

e) Two hours, 3 days a week

f) Two hours, 2 days a week

g) Two hours, 1 day a week

h) Others, specify.....

iii) Do the programs adequately cater for all types of traditional knowledge and all communities in its coverage area? Yes () No ()

Explain

.....
.....
.....

iv) What are the languages used by West FM in disseminating IK?

a) English

b) Kiswahili

c) Other, specify.....

v) Do the languages used by West FM in disseminating IK cater for all listenership communities? Yes () No ()

Explain.....

10) Apart from West FM, do you have other sources of Indigenous/Traditional Knowledge? Yes () No ()

If Yes, explain.....

ii) Are there other ways of sharing IK apart from West FM through its programmes? Yes () No ()

If Yes, explain

11) What are the tools/means used by West FM in disseminating IK?

- a) Computers
- b) Recorders
- c) Cameras
- d) Social media
- e) Mobile telephony
- f) Any other, please.....

Section 4: Application of IK in Development

14) i) What are the social benefits of Indigenous Knowledge to society?

- a) Character building
- b) Acceptable moral value in calculation into individuals
- c) Unpackages society's history

- d) Teaches cultural values
- e) Alternative medicine
- f) Family values and security
- g) Holistic development of humanity
- k) Others, please specify.....

ii) What economic development issues does West FM address in its IK related programs?

- a) Community development
- b) Educational matters
- c) Agricultural progress
- d) Food security
- e) apprenticeship
- f) Others, please specify.....

iii) What are the general contributions of IK programmes dissemination by West on its audience?

- a) Changed perceptions
- b) Improved livelihoods
- c) Enlightened citizenry
- d) Peaceful coexistence
- e) Family values upheld
- f) Improved morality
- g) Any other, please specify.....

iii) How have you applied the above lessons in your personal development?

.....
.....

Section 5: Challenges and Recommendations

15) i) Are there any challenges you associate with Indigenous/Traditional Knowledge programs aired by West FM? Yes () No ()

ii) If yes, explain

.....
.....
.....
.....

iii) How should the challenges be addressed?

.....
.....
.....

APPENDIX III: CHECKLISTS

Checklist for Content Analysis

1. Name of the programme
2. Details of the programme
3. Intended Audience
4. Media application
6. Sources of the IK
7. Development issues in West FM programmes
8. Benefits of IK to society
9. Challenges
10. Programmes improvement

Observation Checklist

Number of people listening to radios

Programs being listened to

Rate of concentration

Reactions to what is transmitted

Places where in IK programs are listened to

Age groups of those who frequently listen to IK programs

Impact of programs on the listeners

Listening behavior

Time of the program

Listening behavior

APPENDIX IV: RESEARCH WORK PLAN

ACTIVITIES	DEADLINE FOR COMPLETION				
	Oct-Dec 2014	Jan-Mar 2015	Apr-June 2015	July-Sept 2015	Oct-Dec 2015
Development and Submission of proposal					
Design and pre- testing of questionnaire					
Design of a final questionnaire/schedules					
Data Collection: Interviews/posting of questionnaires, etc.					
Editing questionnaires, grouping & coding data, entering data into SPSS					
Analysis of data					
Report writing					
Presentation of final research product					

APPENDIX V: RESEARCH BUDGET

Activity	Cost in KES
Two Research Assistants	60,000
Stationary 10000	5,000
Proposal development	10,000
Travelling	30,000
Accommodation	20,000
Research permit	1,000
Miscellaneous	20,000
Grand Total	146,000

APPENDIX VI: LETTER OF INTRODUCTION TO THE RESPONDENTS

Dear Respondent,

I am Ben Wekalao Namaande, a Knowledge management PhD. scholar at Kenyatta University, Department of Library and Information Science. As a requirement for the award of the degrees, I am conducting research on a topic titled *The Role of Media in Dissemination of Indigenous Knowledge for Development. The case of West FM Radio Station in Western Kenya*. The aim of this study is to improve the understanding of IK dissemination and how it can be leveraged in development.

For the success of this study, your input is of utmost importance. Kindly spare some time to complete the attached questionnaire. The information you provide will be handled with utmost confidentiality and strictly for the study purpose. To this end, it is optional for you to provide your personal information.

Thank you in advance for taking your time to assist me in this research.

Wekalao Ben Namande.