

**EXPLORING THE PRESERVATION METHODS OF *NDAYO*
BY
VHAVENDA PEOPLE**

Thesis submitted for PhD degree

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By

Mukhethoni Joyce Sibadela

STUDENT NUMBER: 15012889

Supervisor: Dr. P.E. Matshidze

Co-Supervisor: Prof. V.O. Netshandama

Co-Supervisor: Prof. E.K. Klu

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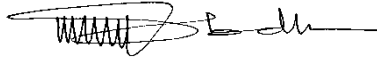
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DECLARATION

I, Mukhethoni Joyce Sibadela, hereby declare that this thesis for a PhD at the University of Venda hereby submitted by me, has not been submitted previously for a degree at this or any other University and that it is my own work in design and execution and that all reference material contained therein has been duly acknowledged.

Signed (Student):



Date: 28 – 02 – 2023

DEDICATION

I dedicated this thesis to my family. My heartfelt thanks goes to my devoted parents, my late father Mr Mphaya Petrus Nedambale, my mother Tshisikhawe Nyatshisevhe Nedambale whose words of encouragement cemented my determination to complete this study. I am grateful for the invaluable support and encouragement provided by my two sisters, Balanganani Annah Mamphasa and Alidzulwi Rose Nedambale, who played a fundamental role in uplifting my spirits throughout this journey. Additionally, my brothers, Azwinndini Prince Nedambale and Nnditsheni Patric Nedambale, have been my enthusiastic cheerleaders since the beginning of this study.

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LIST OF ABBREVIATIONS AND ACRONYMS

ECD	:	Early Child Development
ECDVU	:	Early Child Development Virtual University
EP	:	Elderly People
ICT	:	Information Communications Technology
IFLA	:	International Federation of Library Associations
IKH	:	Indigenous Knowledge Holders
IKP	:	Indigenous Knowledge Practice
IKS	:	Indigenous Knowledge System
KZN	:	KwaZulu Natal
LK	:	Local Knowledge
MSKS	:	Modern Scientific Knowledge System
SA	:	South Africa
TH	:	Traditional Healers
TIKP	:	Traditional Indigenous Knowledge Practice
TKDL	:	Traditional knowledge digital library
TK	:	Traditional Knowledge
TL	:	Traditional Leader
TV	:	Television
UN	:	United Nations
VDM	:	Vhembe District Municipality
VIKH	:	Vhavenda Indigenous Knowledge Holder
VIK	:	Vhavenda Indigenous Knowledge

WB : World Bank

WHO : World Health Organisation

GLOSSARY OF TSHIVENḌA TERMS

Domba	:	The final stage of girls' initiation
Ludodo	:	The third stage of girls' initiation
Mahunḑwane	:	Indigenous game
Vho Makhadzi	:	A sister to a the chief
Mirero	:	Proverbs
Muḷa	:	Male initiation
Musevhetho	:	First stage of girls' initiation
Musidzana	:	Girl
Nematei	:	A person or the principal of vhusha
Ngano	:	Folktales
Ngoma	:	An African word means 'drum' or refers to an initiation school
Nwana	:	Child
Nyamungozwa	:	The principal of domba initiation
Tshivendḍa	:	A language spoken by <i>Vhavendḍa</i> people
U laya	:	To guide
U losha	:	Process of greeting in <i>Vhavendḍa</i> culture
Vhavendḍa	:	A nation found in Limpopo Province, in Vhembe District
Vhusha	:	Second stage of girls' initiation

ABSTRACT

The purpose of this study is to explore the preservation methods of how *ndayo* were preserved by *Vhavenda*. *Ndayo* is a method practiced by *Vhavenda* people when raising their children and their intention is to guide, teach, mould, and transmit norms and values to younger generations. Through *ndayo*, indigenous knowledge holders aim to witness their children grow up in society with control respect and discipline.

The decision to conduct this study was influenced by the alarming loss of preservation methods of *ndayo* by *Vhavenda* people. The objectives of this study are as follows; to explore traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenda* people, to promote the benefits of preserving traditional indigenous knowledge practice *ndayo* by *Vhavenda* people, and to develop strategies that will preserve traditional indigenous knowledge practice *ndayo* by *Vhavenda* people. *Vhavenda* people possess valuable traditional indigenous knowledge practices, which should be passed down to the younger generation. The study will facilitate learning and accessibility of traditional indigenous knowledge practices by the younger generation.

A qualitative method which is exploratory in nature was adopted in this study. Purposive sampling was used to select participants. Unstructured interviews were conducted with twelve *Vhavenda* traditional indigenous knowledge holders who are key participants. Data coded as themes. The findings of the study showed that *ndayo* is an ongoing process done throughout a child's development, and the practices that are predominantly used were expressed in stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community traits, idioms and initiation schools (*ngoma*).

Ndayo can be preserved through the use of digitalization, libraries, websites, e-learning and different platforms of social media, traditional indigenous knowledge practices should be preserved so that the younger generation will have access to the knowledge. The study recommends family, schools, churches, community, policy makers and curriculum implementers to incorporate traditional indigenous knowledge practices specifically *ndayo* by *Vhavenda* people.

In addition, family, schools, churches, community, policy makers and curriculum implementers must promote the benefits of preserving traditional indigenous knowledge practices by *Vhavenda* people.

Keywords: Preservation, Indigenous knowledge, Indigenous Knowledge Holder, Living Libraries, Indigenous Knowledge System, Modern scientific knowledge system, *Ndayo*

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1. Introduction

The preservation of knowledge is vital to safeguard traditional indigenous practices from fading away. Mazour (2006:2), defines knowledge preservation as a process for maintaining and storing important information over time and provide the possibility of recall for future use. The idea of preserving traditional indigenous knowledge practice is very important for future generations. It is through preservation that traditional indigenous knowledge has continued and will still be suitable over generations. Through preservation younger generations can learn and obtain traditional indigenous knowledge practices. Faust (2007:1), states that “the loss of knowledge does not only threaten the safe and economic operation of the nuclear power plants, but also has the negative effects on the socio-political system of a country”. When traditional indigenous knowledge practice disappears, it can paralyse a community, as the younger generation may struggle to trace their identity.

Preservation of traditional indigenous knowledge practice play a significant role in improving the quality of life for those people living in poverty, curing different diseases, solving different problems, as well as to instil norms and values to younger generation. Traditional indigenous knowledge practice is commonly used for daily survival of communities. Failure to preserve traditional indigenous knowledge practice would have challenges for how *Vhavenda* people would guide their children. The continuity of traditional indigenous knowledge practice has been influenced by several factors such as western knowledge, advancement of technology, and death of custodians (Akinwale 2012:4). Akinwale (2012:4), further states that, these factors have led to lack of documentation regarding traditional indigenous knowledge practices. Traditional indigenous knowledge practice is indispensable for understanding and developing the society. Kaniki & Mphahlele (2002:2) accentuate that “Indigenous knowledge has existed since the beginning of humanity”.

Akinwale (2012:4), states that “Information and Communications Technology have changed the landscape in the management and preservation of knowledge in

general and indigenous knowledge in particular”. Anwar (2010:11), point out that “India has also taken the lead internationally in arguing for the protection of traditional knowledge”. Other scholars have indicated that “digitization is a mechanism used to provide the long-term preservation of an item, but not lifetime preservation needs” (Keakopa, 2008:10). Similarly, Koenig (as cited in Muswazi 2001:251), indicates that “codification is the process of creating structured information and knowledge sources through the use of information communication technologies”. Information has been passed from one generation to another through word of mouth by custodians.

According to Swanepoel and Westhuizen (2013), indigenous knowledge is a treasure that elder generations and younger generations within a culture share, but social change and evolution has led to the neglect and inadequate sharing of the relevance of indigenous knowledge. Furthermore, Boikhutso (2012:10) indicates that “rapid change in local communities are the loss of indigenous knowledge and very little knowledge has been captured and recorded for preservation in South Africa”. However, Stilwell (2007), argues that the significance of having different methods of preserving and disseminating traditional indigenous knowledge practice is important. Traditional indigenous knowledge practice is disappearing due to the influence of modernization and continuous globalization. It is thus significant to preserve traditional indigenous knowledge practices. In this study preservation is a means of protecting traditional indigenous knowledge practices for future use.

This research, focuses on the preservation methods of *Vhavenḁa* indigenous knowledge practices, which have become so restricted in today's generation that they fail to comprehend its value and importance. *Vhavenḁa* preserve traditional indigenous knowledge practices through storytelling, folklores, initiation schools, such as (*Musevhetho, Muḁa/Murundu, Thondo, Vhusha, Domba, Tshikanda, and Ludodo*), and traditional dances, such as (*Tshigombela, Tshifase, Tshikona and Malende*). These are ‘local knowledge’, which Turnball (1993:29-31) states that “is a kind of knowledge resulting from observations of the local setting or at a specific location and held by a specific group of people”. Local knowledge including cultural practices are essentially meant to guide educate younger generation as they transition into adulthood within the society. Cultural practices, belief systems, traditional values and rituals were used to transfer *ndayo* to younger generations.

Elderly people use initiation schools as a means of preserving norms and values amongst the younger generation (Ntozini & Abdullahi, 2016). It is an African belief that, it takes the whole village to raise a child. The family is the first institution to guide children in the norms and values of life. It is the responsibility of the elderly people to impart traditional indigenous knowledge practices on the younger generation. Traditional indigenous knowledge practices provide essential information to the younger generation. Different lifestyles between the younger generation and elderly people affirm that traditional indigenous knowledge practices are disappearing. The younger generation who are expected to receive traditional indigenous knowledge practices from the older generation relocate to the cities and as a result, information is not disseminated.

Raseroka (2002:3), indicates that “without apprentices the indigenous knowledge held by these gatekeepers becomes endangered and may be lost to the community, unless interventions to facilitate preservation are put in place”. It is through this study where the younger generation should learn traditional indigenous knowledge practices from custodians. Mohamedbhai (2013:3) claims, “However, with time, the socio-political and cultural dimensions of the western hegemonic tendencies posed serious challenges to indigenous knowledge systems especially to former African colonies”. Similarly, Chilisa (2000:19), writes, “the western considered Africa as a dark continent and despised its traditions, customs, and belief systems. They considered indigenous knowledge systems as diabolic, barbaric, and backward”.

Furthermore, missionaries, the harbinger of colonialism, strongly opposed and had a negative impact on traditional indigenous knowledge systems. Ocholla (2007:240), adds, “Modern technology and democracy also contributed in declining indigenous knowledge practices”. Based on history and the political landscape in Southern African indigenous knowledge, Boikhutso (2012:58), states that “the colonial relationship was forced to show the superiority of their western customs and developments”. Raseroka (2002:2), claims “this knowledge survived for centuries through oral tradition where the experienced were transferring it from one generation to the next”. There is also the use of indigenous learning forms, which are idioms, proverbs, songs and storytelling which are a more tacit way of giving indigenous knowledge as Chisenga (2002), agrees that indigenous knowledge is a tacit and it is difficult to disseminate. The younger generation learn through coping and imitating

from their role model or elderly people. It is essential for elderly people to disseminate traditional indigenous knowledge practices to younger generation.

These forms of indigenous learning can be used to teach the younger generation the norms and values of the *Vhavenda* people. This also enables good behaviour and reduces bad behaviour and hooliganism in families, communities and at schools. The society today is characterised by chaos because traditional indigenous knowledge practices that should stabilize moral values are gradually disappearing. This study focuses on preserving traditional indigenous knowledge practices *ndayo* by *Vhavenda* people. It is through this study that traditional indigenous knowledge holder's hope should be restored. The preservation of traditional indigenous knowledge practice is the backbone of this study, and it is important to widen and broaden its management and preservation through various methods. This study is significant because it bridge a gap in preserving traditional indigenous knowledge practices through social media platforms.

1.2. Problem statement

Preservation methods of traditional indigenous knowledge practices by *Vhavenda* people that are disseminated through storytelling, songs, folklore, folktales, idioms, proverbs, and initiation schools are facing loss, erosion, and depreciation within the community. Traditional indigenous knowledge practices are not included as part of learning in the western education curriculum. It seems as there is no room to preserve traditional indigenous knowledge teaching and learning in both traditional indigenous knowledge schools and modern schools. Some of *Vhavenda* indigenous knowledge holders who are regarded as living libraries continue to die without imparting their knowledge to the younger generation. Moahi (2012:544), state that "indigenous knowledge practices are becoming extinct as the knowledge holders are dying thereby giving room for cultural amnesia and loss of identity".

If traditional indigenous knowledge practices cannot be preserved and protected there will be nothing left to pass on to the younger generation. It will pose serious problems because younger generation would not know their identity, lack knowledge of who they are, where they come from and where they are heading. Consequently there will be no trace and reference about their culture. The United Nations (UN) environmental programme (2008:13), states that "indigenous knowledge is

disappearing, and younger generations are unwilling to use it alongside with modern knowledge”. *Ndayo* must be urgently preserved to revitalize practices that may still be valuable and relevant today. This will help in preventing the extinction of traditional indigenous knowledge practices.

1.3. Purpose of the study

The main purpose of the study is to explore the preservation methods of *ndayo* by *Vhavenḁa* people.

1.4. Objectives

The objectives are to:

- (a) Explore the traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenḁa* people.
- (b) Promote the benefits of preserving traditional indigenous knowledge practices by *Vhavenḁa* people.
- (c) Develop strategies that can preserve traditional indigenous knowledge practices *ndayo* by *Vhavenḁa* people.

1.5. Research questions

The research questions guiding this study are:

- (a) What were the traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenḁa* people?
- (b) What are the benefits of preserving traditional indigenous knowledge practices by *Vhavenḁa* people?
- (c) Which strategies can be developed to preserve traditional indigenous knowledge practices by *Vhavenḁa* people?

1.6. Significance of the study

Indigenous knowledge has been the main focus of South African researchers. Focus was placed on the management and preservation of traditional knowledge by researchers like Boikhutso (2012), Biyela, Oyelude, and Haumba (2016). Other

academics, such as Ramavhunga (2019), focus on the reflections on practices of *u laya n'wana*, towards an afro-sensed approach. Instilling morals and values in children can be challenging for parents and society as a whole, claims Ramavhunga (2019). Ramavhunga (2019:3) stresses that, "there seems to be an overreliance on modernity, which is largely dominated by Euro-Western cultures. In a similar vein, Murovhi (2019) focuses on traditional practices of *nyaluso ya vhana* in a *Venda* home setting. Murovhi (2019) asserts that older people are no longer involved in the conversation about raising children.

Traditional indigenous knowledge holders played crucial roles in transmitting traditional indigenous knowledge practices to younger generations. African society is impacted by Western knowledge which excludes elderly people from childrearing. The studies mentioned above focus on different aspects of *ndayo*, but none of the studies focused on preservation of *ndayo*. Other studies have demonstrated the significance of *ndayo*; as a result, it must be protected so that present and future generations can benefit from it. The study is significant because it focuses on the methods by which keepers of indigenous knowledge transmit to the next generation their own traditional knowledge practices. The preservation of traditional indigenous knowledge techniques is essential because without the ability to trace one's roots and future destinations, one loses a sense of one's identity.

The study is important because it aids the development of strategies to safeguard indigenous knowledge practices that have been handed down through the ages. The study is significant because traditional indigenous knowledge practices will be accessible to people, online, in libraries, on websites and other social media platforms. The younger generation would once again be exposed to traditional indigenous knowledge practices and norms and values. It was hoped that the results of this study would spur a campaign to raise awareness among young people about the importance of preserving traditional indigenous knowledge practices in *Vhavana* culture. The procedure might encourage younger generations to reconsider their origins and gain new perspectives on traditional indigenous knowledge practices

1.7. Definitions of terms

Ndayo ndi maitele a Vhavenda a u alusa vhana mutani nga ndila ya u vha sumbedza kutshilele kwone hu u itela uri ri vhe na vhana vha langeaho, vhare na tshonifho, na mikwa tshi tshavhani.

Indigenous knowledge is the unique knowledge in which a particular group of people practice and live and ways in which they do things; they also pass this knowledge from one generation to the other using songs, proverbs, idioms, initiation schools, as well as cultural dances (Warren, 1991:1).

Preservation is a way in which a particular group of people safeguard indigenous knowledge practices so that future generations can remain connected to their ancestors, follow their footsteps, and observe how their forefathers lived (Yunnus, 2017).

Culture is the body of knowledge that a group of people have accumulated over generations through individual and group efforts, including experience, beliefs, values, attitudes, meanings, hierarchies, religion, nations of time, roles, spatial relationships, and concepts of the universe (Karakowsky, 2001).

Indigenous knowledge holder is a member of family, group and community who has indigenous knowledge, wisdom, special art and skills in which that particular individual is born with, gathered, learned or inherited from their forefathers (Mogege, 2017).

Community is a group of individuals who stick together, share a same language, common interests, common goals, and a common vision. These people are always supportive to one another in many ways (Diaz, 2000).

Rituals are ceremonies in which a family or group of people have common understanding when performing a series of actions or service (Hans, nd).

1.8. CHAPTER OUTLINE

Chapter One: Background to the study

This chapter provides the background to the study, problem statement, purpose and objectives of the study, research questions, and significance of the study, and definitions of terms.

Chapter Two: Literature review and theoretical framework

Chapter two provides a discussion of the literature and a theoretical framework in line with the objectives of the study.

Chapter Three: Research methodology

Chapter three provides the research design, research site, and population of the study, sample, data collection, data analysis, ethical measures, and trustworthiness of the study.

Chapter Four: Research findings

Chapter Five: Summary, conclusions, and recommendations

Chapter five provides a summary, conclusions, recommendations, and areas identified for further research.

1.9. Chapter summary

This chapter provides a general overview of the entire study. It introduces the reader to the background, problem statement, research purpose, objectives of the study, research questions, and significance of the study, and definitions of terms. Furthermore, the chapter outlines the organizational plan for the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The previous chapter presented the background of the study. This chapter deals with the review of literature by looking at preservation methods of traditional indigenous knowledge practices, benefits of preserving indigenous knowledge practices *ndayo* by *Vhavenda* people and development strategies that can preserve traditional indigenous knowledge practices *ndayo* by *Vhavenda* people. Neuman (2011:125), defines the literature review as, “an essential step in doing a study because reviewing the accumulated knowledge about a question being investigated is very important during the research process”. The literature review helps the researcher to identify research gaps. Similarly, Leedy and Ormrod (2010:66), state that “the literature review is important to a research study because it helps one to know more about the investigations and perspectives related to the topic under investigation”.

Leedy and Ormrod (2010), further noted that while a literature review can help avoid conducting research that has already been carried out, it provides new ideas, reveals data sources, and explains how other researchers can show how they approached the methodology and designed the problem. A literature review gives researchers an opportunity to consider the arguments of other researchers on the subject. In addition, a literature review summarizes important sources and explains all the available information on a subject. Within a certain topic of research, it locates, assesses, and synthesizes pertinent data. The researcher can discover gaps and important topics that require additional investigation after performing a literature study. The study considers the fact that as traditional indigenous knowledge practices are passed down orally, it is important to preserve such knowledge for future generations.

When a wise or elderly person passes away, a complete library vanishes, according to a proverb (Manning, 2001), which perfectly captures the scope and importance of indigenous knowledge held by the older generation. In similar vein, preservation of indigenous knowledge essentially depend on collecting, protecting, sharing, harnessing, and documenting information.

This reinforces the urgent need to document, store, and record, manage and disseminate information. “The process of organizing and leveraging knowledge embedded in people’s experiences, competencies, talents, ideas, practices, intuitions, skills, wisdom, and capabilities, in addition to documented and codified sources, has been characterized as knowledge management” (Southon & Todd, 1999:11). Southon and Todd, (1999:12), emphasize that “the core focus of information management is sharing what people know”.

The key focus of this chapter is on the historical background of traditional indigenous knowledge, indigenous knowledge practice, traditional indigenous knowledge education, oral tradition, community of practice, knowledge preservation, indigenous knowledge preservation in South Africa. The chapter also discusses the impact of western knowledge on traditional indigenous knowledge practices, knowledge management, documentation of indigenous knowledge, the significance of the 4th industrial revolution (4IR) in traditional indigenous knowledge practices, information and communication technology, roles of libraries, knowledge preservation, challenges in indigenous knowledge. Lastly the Sankofa approach and the Rostow model of development are discussed inline with the study.

2.2. Historical background of traditional indigenous knowledge

Traditional indigenous populations throughout the world have maintained unique understandings that shape human relations and are rooted in cultural experience. These perceptions and connections make a body of information that is generally referred to as indigenous knowledge, also known as traditional knowledge or aboriginal knowledge. Traditional indigenous knowledge is a network of beliefs, traditions, and information that has been developed over time to maintain, explain, and contextualize indigenous interactions with their culture and environment.

Between kin groups and communities, traditional knowledge is shared formally and informally through social interactions, oral traditions, ceremonial acts, and other activities. Historically, the structure and application of traditional indigenous knowledge that predates colonialism have been concealed by the cultural bias that originally characterized it as simple and unsophisticated.

The *Vhavenda* people continued to raise their children according to their cultural traditions despite attempts by the West to repress traditional indigenous knowledge methods. They view *ndayo* as the most crucial component in raising and developing the tribe's morals, customs, and values. Aside from the fact that *ndayo* has been in existence for a long time, its genesis is unknown with certainty. *Ndayo* is a cross-cultural phenomenon, meaning that *ndayo*, as guidance, and as a rite of passage has existed throughout African human history and has been a significant factor in the development of a person. *Ndayo* is used as a way of life not just only among *Vhavenda* people but to all the societies.

Ndayo is a rite of passage that takes place when a person quits one group to join another and involves a major change in status in society. In the *Vhavenda* culture, *Ndayo* is regarded as essential to both socialization and human growth and development. The entire *ndayo* procedure had two purposes: it preserved the current community and culture as a sign of the group's collective immortality and permanence, and it provided a clear and compass-like way for people to move from one stage of life and area of duty to another.

The community's value hierarchy is verified by *ndayo*. *Ndayo* basically has its deep roots in the structure of the society and was highly respected by those who went through it. *Ndayo* is a combination of rituals, songs and dances done by the younger generation in different developmental stages. There are different aspects of disseminating *ndayo* to the younger generation. There are different learning forms of transporting *ndayo*, such as storytelling, songs, dances, games, idioms, proverbs, folklore, and initiation schools. We have *ndayo* performed in the *Musevhetho* initiation school, and in the *Vhusha*, *Domba* and *Murundu* initiation schools. The initiates graduate from one initiation school to the other depending on the age of the initiate. In this regard, the issue of guiding, teaching, moulding, building, cultural norms, and values are not the younger generation's choice, it is the responsibility of parents. Contrary to the current younger generation who have the right to choose to be part of *ndayo*, or not to participate. Nowadays, parents may wish to send their children to different initiation schools, but if the child is not willingly to attend, there is nothing that the parents can do. Gone are the days where parents exercise the rule that says, 'the child must do as I wish'. Nowadays, the younger generation exercise

their rights and tend to argue with their parents; things that were not done in olden days.

As such, elders in the family were the ones to decide and they controlled the engagement of the younger generation. According to *Vhavenḡa*, an adult male child does not choose his own marriage; this was a taboo, meaning that it was not allowed. Elders in the family were the ones to decide when their male child is grown-up, and they start the process of lobola for the girl whom the boy do not know or chose. They selected the girl from the family they know who do not practice witchcraft. The grown-up male child would meet the wife after the family finalizes everything and parents were the ones to bring the wife to the family and hand her to the man. During that time, there was no platform to say no, but nowadays, things have changed. Nowadays, the younger generation are the ones to decide and chose the life partner from the family of their choice, without considering whether the family is good or bad. Although nowadays the younger generation may not live the olden day's lifestyle, but they can learn *ndayo* through modern ways. This is the focus and the backbone of the study that younger generation must learn *ndayo* through different platforms of social media.

Traditional indigenous peoples were primarily considered in the past as objects to be studied rather than as collaborators. When compared to both imperialist ideology and bigger organized religious groups, traditional indigenous beliefs and customs were seen as religious superstitions. Indigenous peoples were socially and politically marginalized and endured unfriendly environments that made it impossible for traditional groups to remain cohesive across North and South America, Australia, and New Zealand and South Africa. Maori control over their land and future was taken away by colonization, which "directly interfered with the authority of traditional leaders and traditional knowledge" (Smith, 2012:175). Traditions passed down from one generation to the next and from one society to another are the foundation of all human knowledge. Traditional indigenous wisdom has received a lot more attention in recent years.

When colonialists came to Africa, they brought with them the legend that the continent's ancient indigenous populations were barbarians who carelessly

destroyed resources because they lacked morals and laws. Traditional indigenous knowledge in Africa was the collected learning that cultures used to conduct their socioeconomic life, social interactions, spiritual connections, healing rituals, and their ambitions for the future. The society owns the traditional wisdom. Traditional indigenous knowledge was created by members of the culture and over time it has been expanded and changed because of use. It was passed down from generation to generation and was typically a characteristic of a certain group of people who were closely connected to a specific socioeconomic milieu through various economic, cultural, ritualistic, and religious activities.

A fundamental importance of traditional medicine and trade with traditional cultural manifestations was traditional indigenous knowledge. They were very involved with traditional arts and crafts in Kenya, and they used them in their daily lives. Traditional indigenous knowledge holders have the belief that this earth provides them with all they need to exist, including clothing, food, shelter, medicine, and knowledge that shapes and moulds their lives. This includes tourist-related activities like traditional dance and music, cultural objects like wood and soft stones, sculptures, and traditional baskets, as well as other things like these. This knowledge is crucial since indigenous people employ traditional medicine to treat a variety of diseases like prostate cancer, malaria, bilharzia, and more. Traditional medical knowledge typically exists only in places where it is performed in secrecy.

As a result, this information is only disclosed to a certain person, and owners keep it in their thoughts and hold it tacitly. This implies that when the holders of this knowledge pass away or die, a significant amount of useful knowledge may be lost. The health system and the lives of those who rely on this knowledge will suffer as a result. However, the adoptions of preservation techniques will make it easier to collect, preserve, and disseminate traditional medical knowledge. This will help to preserve this knowledge for use by future generations. It is a matter of basic fairness and the capacity to safeguard, preserve, and exercise control over one's cultural inheritance to indigenous people that traditional indigenous knowledge be protected. Traditional knowledge preservation can serve as a framework.

2.3. Indigenous knowledge practices

For more than a decade, human thoughts and knowledge have been passed down from one generation to the next. Indigenous peoples, according to Absolon (2019), have worldviews and ways of relating to the world, and from these worldviews comes the realization that "we are all related". The term "indigenous" is deeply rooted in indigenous worldviews, cultures, and traditions. If indigenous worldviews, traditions, values, and beliefs are the cornerstones of leading a decent life, then the lack or destruction of indigenous worldviews, traditions, and identities has caused imbalance, according to Absolon (2019). Other knowledge has refuted traditional indigenous knowledge practices.

Rejecting traditional indigenous knowledge techniques undermines community's knowledge and makes it difficult for holders of indigenous knowledge to pass on their information to the next generation. According to studies, colonizing agents and processes like residential schools, child welfare agencies, social welfare traps, land confiscations, have all contributed to the imbalance of functioning in the personal and familiar spheres (Duran & Duran, 1995). Arriving at a location of knowledge established by families, communities, elders, and many other helpers (such as teachers, preachers) play a role in the learning indigenous knowledge. Over time, this knowledge improves via experience, teaching, and reflection. We respect the importance of our knowledge's lineage and the identities of our teachers, as well as the places from which we learned it (Marsden, 2005).

To illustrate their indigenous research paradigm, Martin and Mirraboopa (2003: 211) use three interconnected concepts: "ways of knowing, ways of being, and methods of doing". They contend that as we cannot be without means of knowing, our ways of knowing influence our ways of being. The authors contend that methods of doing are thus a direct reflection of methods of knowing and methods of being. It is through ontology that we "create an awareness and sense of self, of belonging and of coming to know our duties and methods to relate to self," claim Martin and Mirraboopa (2003: 206). The framework for indigenous research is created when the beliefs, actions, experiences, and realities of their own indigenous tribe are incorporated into the study. No one in the community is an expert in everything, but everyone has a variety of expertise to carry out a specific function, as Martin and Mirraboopa (2003: 209), note. A mother will impart to her daughter a distinct kind of knowledge about

the belief system and culture in the West Cliff neighborhood, for instance, while a father will teach his son a set of skills, prayers, and rituals. An instructor of the Bible or the Quran, such as a pastor, priest, or moulana. Everyone, therefore, has a unique sort of knowledge to impart to young people.

Younger generations should be able to know and grasp indigenous knowledge since it will be able to assist them behave in an acceptable manner. Martin and Mirraboopa (2003), discuss the "ways of knowing, ways of being, and ways of doing". It is true that a young person's consciousness and sense of self will form and mould their conduct, as well as their methods of being and doing things. To pass on indigenous knowledge to the younger generation, Martin and Mirraboopa (2003), point out that parents, community members, teachers, pastors, and priests must work together. An individual can become a responsible member of the community with the help of this chain. Collaboration between community members is necessary to preserve traditional indigenous knowledge practices for the benefit of the younger generation.

Similarly, a child can be guided holistically starting from childhood stage until he/she becomes an adult. There is no specific age or level where a person can be considered fit to be guided, every stage or level in life, one needs guidance. In similar vein, (*“nga Tshivenda n̄wana u tea u laiwa a tshi kha di vha mutuku u vhuya u swika a tshi vha munna kana mufumakadzi a tshi khou laiwa”*), *zwi vha zwi khou ri isa kha liambele li no ri u guda a hu gumi.* (*“N̄wana nga Tshivenda u a laiwa uri a tshi swika hu re na vhathu vhahulwane khae u a losha, maitete haya n̄wana u vha a tshi khou dededzwa khae misi yothe uri a nwelele a sale o no vha kutshilele kwawe kwa d̄uvha liñwe na liñwe”*). This means that, “In Venda tradition a child is taught from a young age until he or she becomes an adult. In the Venda tradition children are taught that when they meet the elderly they should bow down and greet them”.

This brings us to a Tshivenda proverb that says: *“Tsiwana i laiwa ndilani”*, which means that an orphan or anyone who may be lacking in terms of responsibility can receive guidance and advice from anyone. Either in family, church, at school, in the community because there is no specific time and place to guide a child, everywhere, every time a child can be guided. Throughout the child's growth, the process of guiding them is continual and is always done, regardless of their age or

developmental stage. Indigenous knowledge holders are ambassadors for passing on indigenous knowledge from one generation to the next.

An individual can be holistically prepared to become a responsible member of society using traditional indigenous knowledge techniques. When someone is responsible, they would want their children to grow up in the same way. This should motivate a person to teach his or her children about responsible behavior through traditional indigenous knowledge methods, and by doing so, indigenous knowledge should be preserved, protected, and documented. Educated individuals should maintain, safeguard, and document indigenous knowledge practices so that future generations can access them. When a child is mentored holistically, it implies the mentors should engage with every aspect of life that has the potential to mould them into future adults who will act responsibly. This would strengthen the chain of transmission of indigenous knowledge from indigenous knowledge holders to the next generation. It increases the likelihood of preservation, protection, and recording when indigenous knowledge holders share their knowledge with younger generations.

Humans have understood the necessity of maintaining harmony between the social and natural settings for many millennia. This is corroborated by De Guchteneire, Krukkert, and Von Liebenstein (2004:5), who state that, "through many centuries, human beings have been generating knowledge and techniques that enable them to exist in a balanced relation with their natural and social contexts". According to Maurial (1999), indigenous knowledge is holistic in that it is created and transmitted via human interactions with one another and with the natural world. Maurial (1999) is further backed by Koro (2005), who underlines that indigenous knowledge is holistic since it is inclusive in its epistemological framework and its perspective on reality.

In addition, it is through these studies that the *Vhavenda* people must revive their traditional knowledge systems. The *Vhavenda* indigenous knowledge holders are required to safeguard, preserve, and pass on their indigenous knowledge practices to the next generation using these studies. Our next generation will benefit greatly from the traditional knowledge practice. Indigenous knowledge practices of the *Vhavenda* people must be preserved and documented to prevent the loss of both their knowledge and their cultural identity.

An individual can appreciate and be sensitive of indigenous knowledge when they are aware of it and are well-informed about it. In all areas, there is a balance because constituents depend on one another and are connected through interactions, according to Marsden (2006). We should behave responsibly toward the development of peaceful and lasting (healthy) connections in our world if we are aware of who we are, understand that all life is interconnected via spirit, and learn how to live good lives (Marsden, 2006). The results of this study demonstrate that the *Vhavenda* people practice indigenous knowledge as a way of life.

Younger generations are prepared by traditional indigenous knowledge practices to have values, life principles, and a stable family unit. They are also taught how to live and behave around other people and are encouraged to respect (*thonifho*) other people while also respecting who they are and their beliefs. The *Vhavenda* people hold traditional indigenous knowledge practice to be sacred; it teaches them the value of cultural customs and instils morality, good character, and proper behaviour. As the researcher has already mentioned in this study, this practice is a sacred matter to the *Vhavenda* people. Younger generations are being raised within the family through this procedure. "Indigenous peoples' obligations as spiritual beings include honouring our relationships with all of creation and adhering to our original teachings. This is at the heart of indigenous epistemology.

In the reactive hustle, Ermine (1995), also discusses spirituality, peace, and knowing within indigenous knowledge. He claims that "those who seek to understand the reality of existence and harmony with the environment by turning inward have a different, incorporeal knowledge paradigm that might be termed aboriginal epistemology". Like this, "aboriginal people have the responsibility and birth right to take and build an epistemology coherent with holism and the beneficial transformation of entire human knowledge, the road to this affirmation is through our own aboriginal origins" (Ermine, 1995: 103). Indigenous knowledge systems that are still practiced today are linked to the spiritual and mental aspects of each person and their community, which helps to define particular social groups.

According to Anyaok and Nwafor-Orizu (2015:35), "there is a general agreement on the gradual extinction of indigenous knowledge systems in African communities, including traditional medical knowledge," which they partly attributed to colonization

that had a negative attitude toward anything African and the colonization of Africans' minds so that they saw everything about them as inferior, including their knowledge. Indigenous knowledge systems have always played a vital role in the history of man before the rise of Western civilization; they were frequently employed for things like amusement, food, health, and ecosystem and conservation. Before colonization, Africans were able to exist and survive through their traditional indigenous knowledge methods. Indigenous knowledge is defined by the World Health Organization (2002), as "health practices, techniques, knowledge, and beliefs encompassing".

Ondari-Okemwa (2014), states that "indigenous knowledge can be expressed in the form of tales, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community regulations, local language and taxonomy, agricultural techniques, tools, materials, plant species, and animal breeds". While there was no formal curriculum, no formal structures, no formal guidelines, and no professional educators, younger generations were schooled utilizing the techniques to instill morals and values in younger generation. The younger generation learned by observing, engaging in activities, mimicking, modeling, and putting what they had learned into practice. Basic life skills were taught to the younger generation, which helped them cope with obstacles.

This is the ideal example of how indigenous knowledge practices originated and came to be associated with a spiritual space within oneself and how they have persisted up to this point. Traditional indigenous knowledge and its importance in primary healthcare have received attention in modern times, although practitioners have not made much documentation. Due to the source's view that sharing their indigenous knowledge with others was a secret, there isn't much documentation (Galabuzi, Agea, Fungo, & Kamoga 2010). Aside from that, older people employed a variety of techniques to teach younger people how to use indigenous knowledge. People of all ages congregated in the evening to share stories, songs, folklore, proverbs, dances, etc. that served as a means of transmitting information. They additionally employed initiation institutions like as *Musevetho*, *Vhusha*, *Domba*, and *Murundu*.

Children are prepared to fit in with their families, their communities, their tribes, and their villages. To prepare them for their future responsibilities, children receive a thorough upbringing. Using the method of learning by doing, children participate in classroom activities. When the African community was colonized and influenced by Western knowledge, things were in order back then, but they soon changed. African knowledge is dominated by Western knowledge, which undermines traditional indigenous knowledge techniques. According to Ocitti (1973), education is therefore an integrated experience, where children learned by being observing useful skills to adults and engaging in constructive labour, they learn what is of utility to them, and they did not require much motivation to learn". Ocitti (1973), goes on to say that "through education, individuals of the society can learn necessary skills".

Daswa (2018: 4), claims that "traditional indigenous games like *Mahundwane* allow younger generation to grow physically, socially, intellectually and economically with maturity". During the festival of *Mahundwane*, when they construct temporary homes, kids love copying their parents. A mother, a father, and children must all reside in that temporary home. Along with the mother and kid, the father would perform the part that males are expected to play in family life. According to Erny (1981), "the daughters emulate their moms in such tasks as cooking, grinding, fetching water and firewood". Girls emulate their mother by treating her husband with the utmost respect, whereas boys take on the responsibility of looking after and supporting the family of the man they are imitating. A game called *Mahundwane* was conceived for younger generations to learn how to take care of their families at *Mahundwane*, and this will benefit them when they get married since they would need to put the knowledge they have learned while still in school to use. *Mahundwane* is a traditional game that helps younger generations learn about their obligations in the family.

According to Kaliso (2003), "their absence of suitable mechanism in the form of patent laws for the protection of traditional medicinal knowledge has the ability to invalidate uncommon herbal plant leaves and roots utilized by a herbalist and, as a result, negate their documentation". A method of passing on indigenous knowledge back then was verbal transmission, but because there was no written record of it, this method of transfer caused the information to be corrupted (Weldegerima, 2009). Fear was ingrained in people in various other places of the world, such as Canada,

so they are unable to communicate indigenous wisdom because doing so would result in horrendous massacres (Colorado, 1988).

Canada's indigenous knowledge methods were passed down to the younger generation through terrible deaths. According to this study, the introduction of Western information immobilized our culture's traditional indigenous knowledge methods. Some of our younger generations were rejected from formal education during initiation schools (*ngoma*), which were held in the manner prescribed by missionaries. They had a reputation for being unclean and ostracized. It is a cooperative method of introducing the next generation to society. Indigenous cultures hold that learning should be comprehensive, which means that there should be no area for nearly specialized learning.

Children who receive a holistic education become "jacks of all trades and masters of none" according to Ocitti (1973). Most researchers have expressed the view that the Western, Eurocentric culture that colonized our country must be decolonized, and that people should concentrate on indigenous knowledge and origins to comprehend their methods. According to Alfred (2005) "Critical reflections and discourse create a pathway for decolonization and for freedom to be reached without duplicating or supporting colonialism and Eurocentric hegemony". Decolonization, according to Ngugi wa Thiong'o (1986), is the term used to describe the process of unlearning racism and colonialism. Indigenous knowledge practice places a heavy emphasis on fostering social connections (socialization) in the context of learning (in schools), through indigenous learning, and in tradition.

According to Little Bear (2000), there is importance in understanding that totality and wholeness exist inside the circle of kinship. Little Bear uses the analogy of four flower petals to represent strength, sharing, honesty, and kindness in kinship relationships. Little Bear (2000:81), asserts further that "the job of aboriginal values is to preserve the bonds that hold people together and if creation presents itself in terms of cyclical patterns and repetitions, then the preservation and renewal of those patterns is all-important". Because it binds society, relationships are so crucial, the foundation of a strong society is a good relationship. To easily teach, train, educate, instil discipline, impart, and spread indigenous knowledge practices, elders in the community should have solid relationships with the younger generation.

According to Gone (2004), "community strengths in all areas of prevention, intervention, rehabilitation, support, and post tension approaches would contribute to the growth of grass roots". Moreover, a relationship fosters the kind of trust that makes teamwork possible. Teachings, storytelling, sharing, open participation, and role modelling are among the techniques that "promote relationships and collaborative process," Poonwassie and Charter (2001:63). Indigenous knowledge is the pillar on which the elderly is built. They play a crucial role in information dissemination since they transmit teachings through storytelling, ritual, music, dance, and other means.

According to Wilson (2004: 70), "the development of critical understanding of the social context and conditions of issues such as an understanding of family violence and abuse, alcoholism, addictions, depression, grief and loss, disempowerment, suicide, intergenerational trauma, lateral violence, and multigenerational trauma" are important. Likewise, this study's findings demonstrate how indigenous knowledge may be used to tackle a variety of issues affecting an individual, a family, and a community. Traditional indigenous knowledge wisdom helps families, schools, and the entire community deal with issues including poor discipline, unwanted conduct, drug use, truancy, crime, and hooliganism. These teachings are spread through family members, the next generation, and the community by indigenous knowledge keepers. The fundamental principles of respect, integrity, kindness, and gratitude as well as a sense of community duty and cooperation are embodied in traditional indigenous knowledge practices. Those in positions of authority occasionally enforce laws and punish disobedient behaviour to uphold these principles.

In addition, according to Khupe (2014), "both young and old in Mqatsheni express closeness to the local environment and they appreciate the resources given to them by nature, and how many of the participants take part in traditional practices like ingoma (song and dance) and poetry commonly performed at celebratory functions traditional rites relating to the initiation of boys and girls as well as virginity tests for girls are also practiced". The parent of the child will be imprisoned today, and they will talk about child abuse and child rights if parents forced younger generations to engage in traditional indigenous knowledge practices or the younger generations were involved in virginity tests for girls, without their will that parent will be imprisoned.

Sharing, caring, and respect are the pillars of community, which are at the heart of life. The *Vhavenda* people's interpersonal connections are governed by the values of indigenous knowledge practice that are outlined in their family and community structures. Indigenous traditional knowledge holders are the living libraries because they are the only ones who can provide succinct, in-depth explanations, descriptions, and drawings of indigenous knowledge and how to preserve it for future generations. Indigenous knowledge is most needed in this time of rising mental health disorders, such as depression, bipolar disorder, anxiety, etc., which are brought on by a variety of factors, such as colonization and assimilating into more Western cultures. Other factors include alcohol and drug abuse, family violence, debts, and other situations that can cause mental disorders. Some mental issues are also brought on by workplace stress and grief. All these circumstances can make one feel hopeless and alone. The elders, family, and community would still practice and teach mental healing even under such situations as part of indigenous knowledge practice.

There were ceremonies that were considered, for instance, if a loved one passed away, the community, family, church members, and elders would sit down with the family and talk to them about the loss process. Certain traditional practices were done, such as allowing the family a certain amount of time to grieve, and they would comfort them and stay by their side. This is also a practice of indigenous knowledge; in Africa, we call it Ubuntu. According to Absolon (2010: 82), "it is very essential and a unique one that can be taken care of since it can tackle most difficulties and challenge colonial notions by use of anticolonial activities and it also honours the ancestors and cycles of life and death, while at the same time it acknowledges the psychological aspects and power of knowledge and most importantly assert and respects indigenous knowledge and ways of knowing".

According to Solomon and Wane (2005: 53), "each healing technique is unique to the individual needing healing and to the healer, and some people must not discuss or share holy healing procedures with other people". Additionally, the results of this study demonstrate that the *Vhavenda* people practice indigenous knowledge as a sacred and cultural activity, and that it is difficult for those who hold indigenous knowledge to share it with others. According to Absolon (2010:83), "learning about our truths and sharing common sufferings is a process that occurs over time; our

thirst and hunger for knowledge is sated via the listening to others' stories and experiences and drawing on our collective strengths."

According to Absolon (2010), "acquiring the information and understanding is a life-long journey". Additionally, learning is a process that takes time; it is not something that can be completed in a single day. Indigenous people have cultural teachings that ought to be passed on to the younger generation. Stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, local laws, and the local tongue must all be used to transmit this knowledge. The importance of indigenous knowledge as well as its vulnerability have been addressed by Ngulube (2002), and Sithole (2007). "Indigenous knowledge is primarily oral and reflects many generations of experience and problem-solving by thousands of indigenous people, that the loss of indigenous knowledge will impoverish society", claims Ngulube (2002: 95-96). According to Sithole (2007: 118), "traditional knowledge is in danger of being lost, within one generation, if it is not adequately identified, examined, and shared". The World Bank has expressed major worries about this.

Indigenous knowledge is vulnerable to attrition since its keepers are in danger and younger generations do not really show much interest in it. Since indigenous knowledge is derived from experience that has been painstakingly accumulated over a long period of trial and experimentation, it has been defined as being unique to a certain community, beliefs, or culture (Gupter & Saha, 2009). Indigenous knowledge is, despite being devalued important.

2.4. Traditional indigenous knowledge education

Indigenous knowledge encompasses the indigenous technologies used by the community; social, economic, and philosophical understanding based on spiritual rituals, skills, and ways of being in nature. A person's ability to learn about the quirks of their surroundings and gain a mastery that will foster creativity and social growth is empowered by education. According to Mushi (2009), African indigenous education is the process by which the inherited information, skills, cultural traditions, norms, and values of the tribe are passed from one generation to the next and among the tribal members.

Education in Africa has fallen far short of achieving these goals because Western intervention in the continent led to a rejection of Africa's uniqueness and a denigration of the continent's real experiences. As a result, the environment, lived experiences, way of life, cultural values, belief systems, educational structure, and curriculum of Africans were seen as backward, unscientific, and barbaric, among other things. Following this misunderstanding, a determined effort was made to superimpose the European psyche on the African psyche, frequently with the help of school systems that had been built during or after colonialism. Indigenous knowledge systems, which are a result of the environment and should, in theory, serve as the cornerstone upon which the official education system of every civilization is built, have been repeatedly and purposefully consigned to the margins of society.

A society's values, mores, culture, and way of life must be passed on to the next generation as members of the older generation age and pass away. When a community or a person loses their values, mores, culture, and way of life, that society becomes cultureless and lifeless because there is no longer a record of how their ancestors lived to pass on to the next generation. The study places a strong emphasis on maintaining traditional indigenous knowledge techniques to preserve our society's morals, values, culture, and way of life.

Humans "are born not just oblivious of, but quite indifferent to, the goals and customs of the social group and have to be made aware of them and taught to become actively involved; education and education alone, spans the gap" (Dewey, 1916: 3). Furthermore, education guarantees continuation in society, which is accomplished through the transmission of values based on successful communication; "society not only continues to exist by transmission, by communication, but it may accurately be said to exist in transmission, in communication" (Dewey, 1916: 3).

Additionally, education ought to help members of a society comprehend the world they live in. To grow naturally and be able to advance society, people must learn from their experiences in the actual world. Memorization, abstract learning, drill, and the "learning of fixed subject matter" are obviously not particularly helpful to someone who wants to investigate and comprehend the realities of his or her own lived experiences. Education is not a requirement for life, as Dewey (1916) points out; rather, it is life itself.

To affect change in a society, education can and should do so. According to academics, education can only be used as a tool for social activism to confront the instability and crises that today's society is experiencing (Ozmon & Craver, 1986: 144). Active participation by educators is necessary since information alone is useless without action. In pre-colonial Africa, children spent countless hours listening to seniors in the compound share folktales as part of their education. This was done while sitting in the moonlight.

These tales surely served as entertainment as well as education, spanning a variety of academic fields like as sociology, philosophy, literature, law, psychology, music, and theatre, to name a few. Colonialism had a significant impact on the cultural paradigm of African societies. The transplantation of the European school system, which bore no similarity to the environment and culture of Africa, caused a perceptual distortion that alienated Africans from the realities of their surroundings. According to Mazrui (2003), the influence of Western education has damaged several African cultural norms, including respect for elders and cooperation among peers. What can currently be seen is a concerted effort to confine African identity to specific social classes, like how dependency on the West is reflected in its culture and education.

In contrast to the African notion of social cohesion and communal responsibility, the Western liberal principles exalt the person as the unit of identity. The taste, morals, and other values of the African people have also changed because of Western education. There is little doubt, according to Mazrui, that the educational system, of which universities are the pinnacle, has had a major impact on African conceptions of what is appropriate or improper, just, or unjust, appealing, or repulsive (Mazrui, 2003:78). The reasons behind behaviour have changed due to the change in ideals. In many situations, the desire for rapid prosperity and conspicuous consumerism has been caused by "western individualism and the breakdown of traditional restrictions" (Mazrui, 2003: 79).

According to Mazrui (2003), the "bureaucratic bourgeoisie" has had a considerably more significant impact on African consumption habits than any real breakthrough in science and technology or in the economy. The demand for rapid riches without the corresponding entrepreneurial foundation has been made easier by Western schooling. Long-standing African traditions like respect for elders, cooperation

between generations, and integrity have been replaced by fierce competition, corruption, and widespread thievery in the quest of wealth for showy consumption.

Colonialism "constituted a profound shift in the cultural paradigm of African nations through acculturation and normative dispersion" (Mazrui, 2003: 79). According to Ndah (2010: 5), "government choices and actions become ineffectual when they fail to address public concerns in a manner that is consistent with broadly shared values and preferences". The people in charge of creating educational systems in post-independence Africa continue to improve the foundations of education that were left behind by colonialism in the region for several reasons.

Thabo Mbeki, a former president of South Africa, said about the need for African indigenous knowledge to be given priority attention across sectors that it is essential for the peoples of Africa to come to the realization that they are not and cannot be the wards of kind guardians, but rather agents of their own sustained upliftment. The knowledge of these people that they can contribute in a special and worthwhile way to the development of human civilization and that, Africa has a vital role to play in the international community is essential to this (Mbeki, 2010).

The constraints that colonialism set on what constitutes "appropriate education" continue to shape curriculum and learning in Africa in significant ways. The curriculum of education at all levels serves as an illustration of this scenario because, if it receives any attention at all, indigenous knowledge is typically viewed as a knowledge system that is inferior to Western science. The term "indigenous knowledge" is sometimes used to denigrate it as being unreliable, and claims are made that it lacks scientific rigor and impartiality. Other terms like 'non-quantitative', 'outdated', and 'a methodology' are frequently used to describe it.

In this work, we have tried to provide a case for the inclusion of traditional indigenous knowledge techniques in the mainstreaming of educational systems. The World Bank acknowledges that "educational research has indicated that instruction accompanied by prior knowledge boosts students' ability to absorb contents given to them and they are more apt to retain information" (World Bank, 2000). The text also suggests that teachers use constructivist learning, or building on and teaching new concepts, to use indigenous knowledge as the basis for their lessons.

In sub-Saharan Africa, education and research have mostly adopted an outside-in methodology in which the agenda for what should be investigated is defined by the donors or development partners. The curriculum for teaching and learning is no different in this regard. On the continent of Africa, very little effort has been made to change the teaching and learning curricula in a way that promotes independent, environmentally conscious, and sensitive teaching, learning, and research.

This principle represents the awareness that indigenous peoples possess a vast body of knowledge, even if post-industrial Eurocentric civilizations have not always appreciated this information (Battiste, 2005). It also acknowledges the contribution of indigenous knowledge to non-indigenous perspectives on the world. Indigenous knowledge is frequently referred to as "traditional knowledge," and some see it as immutable information that is only grounded in the past. Instead, it is "a dynamic, adaptable system built on skills, abilities, and problem-solving strategies that vary over time depending on environmental variables" (Battiste, 2002:11).

The incorporation of non-appropriated indigenous knowledge (in the form of curriculum, resources, pedagogy, etc.) in schools serves several objectives. It respects the fact that indigenous peoples possess a substantial and profound body of knowledge that has historically either been disregarded or disparaged (often as a part of colonial policies). Additionally, it allows indigenous students to see aspects of who they are reflected in their surroundings in our institutions (an often-necessary condition for the success of almost all learners).

In addition, it aids non-indigenous learners in bridging some of the gaps between indigenous and non-indigenous peoples. To building a more adaptive educational system for all pupils, integrating the traditional indigenous viewpoints of teaching and learning can be of great value. Traditional indigenous knowledge, models, instructional techniques, and curriculum are the main topics of indigenous education, whether it be in formal or informal educational systems. Indigenous educational practices are becoming more widely accepted and used, which may be a reaction to the deterioration and loss of indigenous knowledge brought on by colonialism, globalization, and modernity. Indigenous forms of education in various cultures and nations have been reported in a growing corpus of scholarly literature. All community members participate in the process of learning in indigenous cultures. Children learn

in similar ways in their communal environment as they do in the indigenous schools they attend.

As witnessed among American, Indian, Alaskan, Native, and Latin American communities, these indigenous learning approaches frequently incorporate observation, imitation, use of narrative, storytelling, collaboration, and cooperation. The younger generation learns through imitating what their parents and communities do in real life. While younger generations learn through copying what the elders, parents, and community members do, such as doing housework, following daily routines, and using appropriate greeting and welcoming techniques for family members and other community members. African beliefs hold that it is the responsibility of the entire community to ensure that the younger generation is guided, moulded, shaped, developed, and corrected when doing incorrectly. Any member of the community who witnesses a member of the younger generation acting inappropriately should correct them immediately without waiting to tell their parents.

This practical approach places a strong emphasis on learning via inclusion and first-hand experience. The community members urge the youngster to engage in meaningful participation because they believe they are an important part of it. Without explicit or formal instruction, children can frequently learn skills through this approach. This contrasts with Western learning systems, which frequently employ techniques like testing or quizzing, explicit instruction, in which a person in authority directs the learner's attention, and other forms of grading.

It is easier for a child to retain knowledge if they are learning in a way that has been supported by their family and community since infancy, which can be achieved by creating for indigenous children an educational environment that is consistent with upbringing rather than an education that adheres to a traditionally Western format. The importance of indigenous knowledge cultures and environmental contributions is typically undervalued in Western educational approaches, which makes them irrelevant to the backgrounds of future generations. Because indigenous students thrive in learning situations where their cultures and languages are respected and integrated into the curriculum, modern schools have a propensity to teach skills devoid of context.

The promotion of indigenous educational practices and the incorporation of traditional knowledge also helps individuals in Western and post-colonial nations to reconsider the innate hierarchy of knowledge systems. There has been a historical denigration of indigenous knowledge systems by Western educators; however, there has been a recent change in favor of appreciating the importance of these traditions. We must recognise that there are several forms of knowledge in addition to the one, established, benchmark system to include parts of indigenous education.

According to Higgs (2016: 1), the voices of indigenous communities in Africa are silenced by African educational systems because they share colonial educational paradigms that were passed down from prior colonial educational systems. Additionally, he claims that colonial education was hegemonic and divisive of African cultural practices and indigenous epistemologies and modes of knowing. Schools will never be really Africanized, according to Msila and Gumbo (2016: 57), unless teacher education programs are ingrained with indigenous knowledge systems, the institutional culture is freed from bias, and faculty members open to new ideas and philosophies.

Shava (2016), is worried that formal education curriculum in Africa continue to be dominated by Western knowledge systems and that there is still a lack of representation and application of indigenous knowledge in formal education and socio-economic contexts. Any country's development depends heavily on education, and for education reforms to fulfill this function, they must be inclusive, well-planned, free from political interference, owned by stakeholders, adequately funded, and subject to recurring technical consultations to foster innovation (Chang'ach & Muricho, 2013).

Success in education, regardless of its format, depends on how user-friendly and culturally grounded it is (Sesanti, 2016). Any society without a formal education system for disseminating in distinct languages knowledge structured in a societal ethos is doomed to improvise and faces the risk of ceasing to be a society with an identity (Assie-Lumumba, 2016). In line with this, Lumumba (2016), claims that education, in all its forms, serves as the main tool for enculturation. Education defines the entire human being as a member of a certain society with its worldview, ethos, and social representation. Gumbo (2016) continues to make the case that curricula provide packaged knowledge that, to help indigenous students and other

ideas across the cultural realities of a certain community, should embrace indigenous perspectives.

For thousands of years, these indigenous ways of knowing have produced knowledge and talents that have helped the human species survive (Hewson, 2015). Education is a two-edged sword that can be employed by those who wish to overthrow the current social order as well as by the dominant class to play a conservative role of control (Assie-Lumumba, 2016). With the growth of Western values, social structures, and institutionalized modes of cultural transmission, educational techniques and indigenous worldviews have been put in danger (Barnhardt, 2014). According to Shava (2016), the Western educational system denies students the opportunity to bring knowledge from their own lived experiences into the educational processes. Instead, students' experiences are viewed as inferior and their accumulated indigenous knowledge practices are considered unimportant and worthless.

Although formal education in many countries today continues to be Eurocentric in outlook and academic in orientation, reflecting Western scientific cultures rather than the cultures of students and teachers (Abah, Mashebe & Denuga 2015). There have been lively debates over the years about the necessity and importance of integrating indigenous knowledge into the school curriculum (Abah, Mashebe, & Denuga 2015). According to Kamwendo (2016), one of the effects of this approach has been the disregard for African cultures and indigenous knowledge systems. He suggests that curriculum that involves altering teaching, research, and interaction is essential in African education.

Among other things, institutionalized knowledge creation processes and modern education systems in Africa have greatly aided in the marginalization and exclusion of indigenous knowledge from the mainstream educational process (Shava, 2016). African intellectuals are becoming more and more aware that it is past time for colleges to recognize African traditional knowledge (Msila, 2016). African educational philosophy is anticipated to enable communities to take an active role in their educational advancement by increasing the experiences of both students and teachers (Higgs, 2003).

Higgs (2016) asserts that a curriculum developed using indigenous African epistemologies is primarily concerned with encouraging educators and learners to develop confidence in their own skills and a sense of pride in their unique ways of being in the world. According to Gruenewald & Smith (2014), educators should start focusing more on the connection between community well-being and the educational process if they are concerned about the welfare of diverse communities.

In a similar vein, Higgs (2016), emphasizes that curriculum developers should contribute to the initiative of epistemological redress and infuse the curriculum's subject matter with the wealth of knowledge that arises from local communities and appropriate such knowledge towards human-centered development. Indigenous knowledge is a potent teaching tool that may be used to instruct students since it is ingrained in culture and literature and has significant implications on school learning (Shizha, 2013). Indigenous knowledge is a resource that is used by societies all over the world to tackle daily socioeconomic issues, deal with environmental issues, and adjust to change. However, the phrase "indigenous" knowledge, like the term "indigenous", has endured as a general term despite its issues as soon as the younger generation embraces and learns.

Even though metamorphosis is a painful, unsettling, and long overdue element of our life, it is crucial to accept it. We must concentrate on bringing back the wisdom of the elderly to our educational system and acknowledge that if we broadened the scope of the information we valued and included, we may gain a deeper and more comprehensive understanding of the world and of ourselves. By providing an education that adheres to an indigenous person's own inherent perspectives, experiences, language, and customs, the inclusion of traditional indigenous knowledge practices in school curricula frequently enhances educational effectiveness and facilitates children's transition into adulthood. According to Ejide (2010), it is beneficial to incorporate indigenous knowledge into the educational system. Among the ways to incorporate real indigenous experiences into school curricular.

Indigenous knowledge people view education as an essential tool to improve the situation by pursuing economic, social, and cultural development. Indigenous education provides individual empowerment, self-determination, basic skills, knowledge, and attitudes that enabled individuals to live and function effectively in

the society. African indigenous education prepares younger generation for life duties in their societies. It has also greatly influenced the need for development of more appropriate problem-solving educational curriculum and the promotion of life-long education. African indigenous knowledge is essential because learning takes place throughout, based on the traditional belief that children are 'fragile, soulless beings', the traditional education focuses on nurturing children rather than on punishing them, children develop an understanding of cultural norms and values. Traditional African education based on practical common sense, on teachings, experience, and it is holistic, it cannot be compartmentalized and cannot be separated from indigenous people because it is a way of life.

A lifelong student who is cultured, polite, integrated, sensitive, and responsive to the needs of the family and neighbours was the goal of traditional African education (Nikiema, 2009). It aims to instill behaviors and principles that will help a person fit into larger societal groups (Fajana, 1978). A person who has received a traditional African education would be wise, self-assured, and able to withstand temptations and hardships whatever their circumstances. The topic of Africanizing the curriculum must therefore be revisited to ensure that learning is contextualized, which occurs when the curriculum's content and the teaching strategies and resources are closely tied to the experiences and surroundings of the learner. Despite the decline of African education, it is still significant and relevant to reclaim indigenous knowledge since it not only preserves the past but also has the potential to be crucial through its ongoing processes to secure a sustainable future for Africans.

2.5. Oral tradition

Oral traditions, in the words of Kargbo (2008), are the memories and living accounts of the past that have been passed down, narrated, and shared throughout culture. The term "oral tradition" refers to a wide range of cultural heritage practices and resources that have been passed down through the generations through observation and word of mouth (Biyela, 2016). Oral traditions also include dances, role-playing and acting, songs, proverbs, myths, folklore, riddles, and other means of communicating and transmitting knowledge about a community's culture, customs, and behaviour. In acting, vocal emotions, facial expressions, bodily gestures, and vocal expressions are employed to convey messages (Reitsma, Smith, & Van den

Hoven 2013). The ability to act allows the performer to develop a narrating style to enhance the performance. Children enjoy learning through practice, observation, and imitation, because something that they have practice, observe and imitate is hard for them to forget.

It has been observed that in African civilizations, children are taught about their history, identity, and culture through storytelling. One of the most important methods of education that captivates young children and makes them want to join in debates among the elderly is storytelling. As a means of transmitting indigenous knowledge to be revived in schools and the community so that the next generation is not disadvantaged, storytelling is one of the key areas of explanation of indigenous systems (Ngulube & Lwoga, 2007). In rural communities in Africa, learning by doing (apprenticeship) is still a popular method for imparting knowledge (Easton, 2004). The foundation of memory and education is storytelling (Ngulube & Lwoga, 2007). Children were taught how to perform household duties in the family.

Even though it resembled a play, it had an important purpose in entertaining, instructing, leading, and correcting young children. Because stories encompass every aspect of life, they are the best way to nurture and develop children on a holistic level. According to Linde (1993), African women use traditional teaching techniques such as dance, folktales, proverbs, poetry, and songs to pass along cultural values to their offspring and neighbors during celebrations and rituals. Norms, values, respect, obedience, discipline, and cleanliness were taught to the younger generation. All these abilities prepared them to become polite, obedient children who were admired by everyone in the neighborhood.

To promote communication between men, women, and the general community, skills and knowledge are taught to children from a young age. Younger generations benefit from the instillation of African knowledge, which helps them create strong morals, beliefs, and behaviors. Younger generations are more likely to have problem-solving abilities in their families and the larger community if they understand Africa. In a similar vein, Kargbo (2008), affirms that oral tradition should not only be used as a teaching tool but also as a means of creating local history programs that will teach students how to conduct local research by looking into local communities' family,

history, tribal customs, religious beliefs, song, drama, dance, and agricultural practices. Oral communication and practical training (apprenticeships, ceremonies, practices, etc.) are key methods of communication among indigenous cultures.

These abilities are, however, being lost by the younger generation because of their increased time spent in Western-style educational institutions and less time with local elders who serve as teachers. When the researcher was a child, grandparents and parents took care of their grandchildren in a nursery setting, using their own cultural practices. Even though parents and grandparents did not have the same training as modern caregivers who specialize in newborn care, their efforts and contributions were nevertheless valuable and fruitful. Traditional methods, cultural values, morality, and African ways of life are subjugated by modern day nursery care for newborns. Due to its dominance over African knowledge, which implanted moral ideals in the younger generation, the arrival of Western knowledge poses a severe danger.

Cultural values were destroyed by Western knowledge, and traditional people lost their sense of African identity and the African Ubuntu of raising up children to be responsible adults in the future. African nations have started to turn to the indigenous knowledge paradigm after a protracted period of neglect and contempt for traditional indigenous knowledge practice by Western knowledge. Western scientific paradigm was, however, generally exclusive, universalizing, and excluding despite being based on a long history of the interchange of local knowledge. Despite significant contrasts between the two paradigms, most of the research on Africa shared a resurgence of interest in participatory development and the integration of indigenous knowledge into development practice.

Others believe that traditional indigenous knowledge offers a substitute for the capitalist, individualist morality of the Western culture, which has been held responsible for destroying the earth and endangering the existence and quality of life of future generations (Obomsawin, 1993). Authors "propose generative curricular model as an effective technique of incorporating indigenous knowledge without demanding the Westernization of this knowledge or the privileging of one paradigm over another," according to Ball and Pence (1999; 2001). The ECDVU program's

authors advocate the utilization of traditional indigenous knowledge in early childhood development. However, the absence of recent study and recording of childrearing behaviors, customs, norms, and beliefs presents difficulties for using traditional indigenous knowledge in ECDVU in Africa. Despite this, many people took part in the program because they understood the importance of local knowledge, traditions, and practices, which were relatively fresh and transformational.

Malawi, Lesotho, Nigeria, Uganda, and Tanzania were among the countries represented in the ECDVU program. The collecting of traditional indigenous knowledge stories was one method the ECDVU program employed. Elderly folks utilized folklore to instruct youngsters after gathering stories, but they did not record them; instead, they preserved them in their thoughts. Following the gathering of the tales, they build or produce a sample curriculum, and within that curriculum, they design lesson plans for ECD activity centers as well as lesson plans for households.

The children of educated households who relocated from a rural to an urban region are no longer able to regularly hear their grandparents' tales. These families' children were mostly exposed to cultural influences from traditions that were different from their own. The local knowledge and lore that would have been useful to these children in their own lives was kept from them. It has been proven that stories support children's language acquisition, social growth, identity development, and character building. Songs that the children could perform along with some of the stories added to their value. In addition to the inherent appeal that "songs hold for children, and the chances they create for children to improve their language, pitch, and rhythm skills, songs can also help children develop their social skills."

In his introduction, Ntsonyane (2004: 6), provided background information for his study by stating that "the emergence of ECCD programs in Lesotho was, to a great degree, a response to the dissolution of traditional institutions and family structures that were responsible for childcare". In the same vein, Ntsonyane (2004: 9), made the claim that "the research evidence to date shows that cognitive development that is embedded in the socio-eco-cultural relationships and practices and participation of children in local cultural activities would be more effective in ensuring that children develop to their full potential". The recognition by the Basotho of the "potential latent

in their cultural heritage" is thus one anticipated contribution of the study that Ntonyane (2004) hopes to make.

Using traditional stories (litomo) with young children, according to caregivers and elders, has several benefits. They listed things like language development, the spread of culture, moral and social growth, pre-mathematical skills, memory development, and so forth. Both caregivers and elders supported the use of traditional stories (litomo) in ECD centers, however, the former supported the use of storybooks while the latter believed that elderly women should be invited to perform the storytelling. However, the issue was brought up that if children were not exposed to traditional storytelling (litomo) and other facets of Basotho traditional culture at home, there would be a discrepancy between what is learned at home and in school.

Children found the topic of storytelling to be very interesting, and they responded favorably because the stories were told to them in their native tongues rather than in English, which had previously been the standard for storytelling, and because the messages were relatable to them and simple to understand. Gamurorwa (2004) discovered through her research that the culture of storytelling has been dwindling in Uganda because of modern cultural influences, the demands of formal education, the rise of urbanization and the shift from extended to nuclear family living arrangements, and family struggles for economic survival.

By raising awareness among parents and caregivers about the extensive indigenous knowledge that can be tapped to promote children's holistic development—morally, spiritually, intellectually, and emotionally—her work aimed to do more than just document pre-existing storytelling; it also aimed to rekindle interest among the current generation of parents, caregivers, and children (Gamurorwa, 2004: 5). The focus group discussions, in-depth interviews, as well as the content analysis of a few selected stories, let Gamurorwa (2004) identify several themes. The main themes included problem-solving abilities, fortitude, bravery, greed, and corruption, cunning and intelligence, compassion for others, family life, respect for authority figures, hard labor, and good and evil. Character development (90.9%) and child education were the two main issues. Parents, teachers, senior citizens, and opinion leaders acknowledged the value of indigenous stories for children.

To find and record indigenous stories for the purpose of integrating them into ECD services, the researcher urged the community members to come to the centers and share their stories. They also put a lot of effort into coming up with plans for reviving storytelling at yearly celebrations. Achebe (1996) remarked that one proverb is the palm oil Ibo use when eating yams, according to Ezirim (2004), "confirming the efficiency of proverbs in storytelling and child rearing in Igbo land" (Ezirim, 2004: 3). In the Igbo tradition of the past, fictitious, and true narrative stories "were also employed to improve the child's imaginative, thinking, and learning skills, especially when the histories of the communities or biographies of founding fathers of the villages are narrated," according to Ezirim (2004:3). She adds, like other African nations, Nigerian society is undergoing changes related to urbanization and modernization, which have an effect on regional culture and, in many instances, result in the loss of storytelling traditions. Modernization and urbanization were some of the enemies because when young couples migrated to metropolitan areas, they sent their kids to multiracial ECDs and the odds of them learning their own indigenous knowledge practices were very slim. These kids grew up unaware of their identity or family history.

In Nigerian society, stories were submitted and examined by the entire community as part of a participatory exercise, which also served the additional purpose of assisting in the training of ECD carers. Men often tell stories of bravery while women typically tell stories of love and compassion. These stories all had strong morals and varied in themes based on the storyteller and the audience. Community members and ECD caregivers were urged to think of strategies that would allow children to actively participate in storytelling as opposed to just listening to it. During the telling of stories, kids may learn additional skills. To enhance the cognitive, social, moral, spiritual, and emotional development of their children, parents and families engage in psychosocial care activities (Sagnia, 2004: 3).

In Gambia, little is known about what parents and other adults do to support the psychosocial development of their children from an ECD perspective. To create programs that "help communities to address the holistic development of children more effectively," it is important to identify indigenous knowledge and traditions. This

will complement government efforts and those of other interested parties (Sagnia, 2004: 6). However, play's importance in children's development was recognized. For instance, it was thought that play would aid in the development of children's listening and attention skills, keep them occupied while parents were engaged in other activities, and aid in the development of their ability to express themselves. A method of determining whether a youngster was physically ill was to see whether they would play or not. Even while they are at home with their parents, children need to be encouraged to develop a love of reading. The importance of indigenous knowledge for the early development of children should be emphasized by parents.

To reduce the knowledge gap and instill moral values in the next generation, it is crucial to combine traditional indigenous knowledge with modern information. Even though there are differences between the two traditional knowledge has a formal structure, whereas modern knowledge has one combining the two would result in a skilled member of the community. Preserving indigenous traditional knowledge is critical to ensuring the survival of communities and their knowledge. Traditional indigenous knowledge in African communities, if not recorded and preserved, would be lost with the death of elders and traditional leaders, remaining inaccessible to other communities, scholars and development workers (Warren, 1991). For example, when a traditional midwife dies, she dies with both her experience and skills.

Since colonial education systems supplanted indigenous societies' practical daily life aspects and learning methods with Western notions of abstract knowledge and academic learning methods, the perspective of the Western knowledge is frequently the one that predominates in education (UNESCO, 2020). Like this, the Modern Scientific Knowledge System (MSKS) is a component of humankind's scientific and technical advancements, and its origins are in the scientific work undertaken and developed in institutions of higher learning, like universities and research institutions (Tharakan, 2017). The models for training, growth, and career promotion also include improving the current mechanisms for learning, knowledge sharing, and development, making this process self-replicating.

One of the most crucial concerns on the national and international agenda is the need to protect biodiversity for future generations while attempting to acknowledge

and document indigenous knowledge of resource management approaches (Farooquee, Majila, & Kala 2004). Like this, using indigenous knowledge promotes the continuation of traditional behaviors, lifestyles, and traditions (Tharakan, 2017). Institutions of higher learning that support and incorporate the application of traditional knowledge in a variety of fields are essential to the continued existence of traditional indigenous knowledge practices.

In 2014 there was an establishment of the center for indigenous knowledge systems at the University of KwaZulu-Natal (UKZN), in collaboration with North-West University (NWU), University of South Africa (UNISA), University of Venda (UNIVEN), and University of Limpopo (UL). Researchers studying indigenous knowledge should be encouraged by these universities to carry out their work. The mission of the center, which is to "be a world rallying hub for the preservation, promotion and protection of indigenous knowledge systems through multi- and trans-disciplinary collaboration among researchers, institutions, community knowledge holders and practitioners from within and outside South Africa, affirms that there is still hope for traditional indigenous knowledge.

The role of traditional leaders as the guardians of indigenous knowledge is unassailable even though traditional indigenous knowledge is often preserved in social memory and is rarely documented in any way. Since they are the keepers of traditional values, they serve as the pillars for the continuity and transmission of this knowledge down the generations. They also serve as managers. For instance, the local traditional authority and its community, the *Vhaṭavhatsindi* who are members of the *Vhavenḁa* people, view Lake Fundudzi as their sacred area and continue to maintain and protect the Lake. Because it is thought that Lake Fundudzi is full of spirits and that few *Vhavenḁa* people enter it out of fear of hauntings, it is recognized as having the clearest waters among the various lakes in the nation.

2.6. Community of Practice (CoP)

According to Ngulube and Mngadi (2009), a community of practice is made up of individuals who cooperate in a responsible manner to share ideas. To exchange tacit knowledge, communities organize gatherings for this purpose. Biyela (2016), asserts that knowledge sharing through community practice is a strategy that has been

around and employed for a very long time. Through communal gatherings when socialization takes place in the form of exchanging ideas, knowledge, and experiences, traditional wisdom can be preserved.

In the same vein, Wenger (2011), affirms that a community of practice is created by individuals who engage in a process of collective learning in a shared field of human endeavor, such as a tribe learning to survive, a group of musicians seeking out new forms of expression, a group of students defining their identities in school. Knowledge exchange through apprenticeship is made possible by a community of practice. Furthermore, according to Biyela (2016), communities have long engaged in the practice of exchanging information during gathering but this tradition is vanishing because of modernization-related factors.

Similarly, Biyela (2016), notes that a community of practice is composed of three components, namely: the member who possesses a trusting relationship, commitment to the community of practice's aims, and the member who has competence in the group's field. Moreover, apprenticeship (learning by doing) is still seen as a typical method for maintaining indigenous knowledge in communities, according to Biyela (2016). According to Coleman's (2013), findings, traditional knowledge holders pass on their knowledge to others through apprenticeships, which take place under the supervision of a recognized traditional knowledge holder who has been teaching others this information for a long time and receives compensation for doing so.

This indicates that only experts can impart their information to others; as a result, sharing knowledge cannot be considered a reliable method of knowledge preservation because of what would happen to the knowledge after the expert has passed away or dies. Additionally, Coleman (2013), makes the case that to create the framework for methods of knowledge gathering from owners, tacit knowledge held by conventional knowledge holders must be converted into explicit knowledge.

This study aimed to investigate the methods traditional indigenous knowledge holders employ to safeguard their knowledge. The crucial phases for maintaining indigenous knowledge, including detecting, and capturing, validating, recording, and

documenting, storing, transforming, and disseminating, Lodhi and Mikulecky (2010). To keep this information alive, the approaches employed must be able to recognize, seize, store, and distribute it. According to research, there have been numerous efforts throughout the years to recognize and preserve indigenous knowledge, and there has been evidence of success in this regard. The WHO (World Health Organization, 2013) has raised awareness about the value of traditional indigenous knowledge. African communities use methods like oral storytelling and practical training to preserve and spread their knowledge (Anyira Onoriode, & Nwabueze, 2010).

Despite the obstacles and opportunities presented by the Modern Scientific Knowledge System (MSKS), traditional indigenous knowledge methods and procedures are one of the long-trusted and applied practices with good successful examples (Tharakan, 2017). Like this, because it is a practice that runs deep into the veins of indigenous people, traditional indigenous knowledge is genuinely trustworthy and credible. It is neither a hypothesis nor an assumption to the traditional indigenous people that traditional indigenous knowledge is practiced. Elders and community leaders would employ totems and taboos to protect a specific landscape or resources by using the practice, which is a part of traditional indigenous knowledge practice.

Traditional indigenous knowledge was kept and transferred according to a certain hierarchical structure, such as the village's traditional healer, the chieftaincy, and at the family level, through parents or aunts, who are known as Rakgadi in Sepedi, Hahani in Xitsonga, or Makhadzi in Tshivenda. Because Makhadzi's responsibility is to handle issues, dangers, and obstacles inside the family, she is the most significant and revered member of the *Vhavenda* community. According to research, contemporary methods like the utilization of ICTs, libraries, and other resources have been recommended. The largest repository of traditional knowledge in the universe is expected to be the traditional knowledge digital library (TKDL).

2.7. Knowledge preservation

Information preservation techniques have changed throughout time. For storing and dispensing their knowledge in the past, the guardians of traditional indigenous

knowledge traditions used clay, metal, wood, and stones. A series of procedures known as preservation are meant to keep a piece of music, a book, or other object intact for as long as possible with the least amount of alteration. According to "Preservation, Library and Archival Science" (n.d.) preservation is a broad category of actions that includes keeping an eye on the state of objects, preserving cultural knowledge, and preventing information loss. According to Senanayake (2006), unless it is systematically documented and preserved, indigenous knowledge, which has typically been passed down from generation to generation orally, risks being lost. The same is true for *Vhavenda* indigenous knowledge practices.

In a similar vein, Warren (1992), asserts that "the future of indigenous knowledge that reflects many generations of experience and problem-solving by thousands of indigenous people throughout the world is uncertain". As a result, knowledge preservation can be a procedure used to keep knowledge that is crucial to an organization's mission and to store knowledge or information through time with the prospect of recall for the future (Mazour, 2006). The process of recording, safeguarding, or preserving knowledge for future use is sometimes referred to as knowledge preservation. By enclosing documents in earthenware jars and other containers, preservation in ancient times was largely used to safeguard information. Additionally, knowledge could be retained as information in the form of a book, document, or other electronic study and advocacy network.

The library and information profession, according to Nakata and Langton (2005), needs to learn a lot if it is to effectively manage traditional knowledge and address the information needs of indigenous people. Libraries may need to venture outside of their comfort zones to do this. The African proverb "when an elderly dies, a library burns down" beautifully captures the significance of indigenous knowledge preservation and cultural continuity, which the study revealed to be a major need (Maina, 2012). Indigenous peoples use methods including storytelling, experience, and self-learning to pass down their knowledge. These methods are influenced by corporate memory, beliefs, views, skills, mental models, judgment, wisdom, and experiential learning.

The same goes for Lebese, Maselesele, & Mothiba (2015) who wrote that "indigenous knowledge is stored in people's memories, activities, and is expressed in

stories, songs, folklore, proverbs, dances, myths, cultural values, experience, and self-learning that has influence by beliefs, perspectives, skills, mental models, expertise, judgement, wisdom, corporate memory and experiential instruction, rituals, and community traits". Additionally, it is critical to conserve, record, and safeguard traditional indigenous knowledge techniques for use in the future.

Although Kok (2005), contends that "no individual, organization, or community can, nonetheless, possess all information required for varied scenarios", Indigenous knowledge is thought to be a treasure that indigenous knowledge holders and younger generations within a culture can share, however social change and evolution have left the relevance of traditional indigenous knowledge being ignored and unshared effectively (Swanepoel & Westhuizen, 2013). Traditional knowledge that has been verbally transmitted from one generation to the next is at risk of losing its owners unless it is formally documented and maintained (African Minds, 2015). There is an urgent need to discover a method of recording and storing information to prevent the issue of traditional knowledge practices going extinct.

According to Bathelt, Malmberg, & Maskell (2004:39), knowledge "may be kept as information in a form of a document, book source, or any other electronic research and advocacy network in Africa. In addition, they suggested that the generation of indigenous knowledge should be viewed as the fundamental building block of education. There are books that currently contain the formal (explicit) information that higher education institutions and their respective communities share (Nonaka & Von Krogh 2009:636). Furthermore, according to Mothwa (2011:23), "indigenous governance, community, social, health, and justice are likely to grow as a result of community engagement. Curriculum integration of indigenous knowledge, as well as higher education modules and current fundamental topics. As a result, the curriculum developers provided sufficient opportunities for incorporating impactful informal sustainable knowledge into the school system.

To conserve indigenous knowledge, Moahi (2012: 544) states once more that "academic and library programs need to integrate indigenous knowledge into learning activities". The scope of maintaining, recording, and protecting traditional indigenous knowledge can also be expanded by incorporating it into educational activities. Information centers, libraries, museums, archives, and websites with

electronic databases are a few of the facilities that contribute to knowledge preservation (NLSA, 2014). Libraries must keep up the momentum because indigenous people should continue to be kind in sharing their knowledge with them (Nakata & Langton, 2005). Masango (2010) adds that one possible justification for the necessity to conserve indigenous knowledge is the fact that Western science profits greatly from medicinal plants without the source's permission.

Younger generations undervalue indigenous knowledge systems (IKSs) because of modern technology and education, according to research (Ulluwishewa, 1993: 11-12). Furthermore, "old knowledge processes are undercut and marginalized, and the world that the younger generation understands better is the world of technology, and this might lead to indigenous knowledge facing the risk of disappearing". The traditional knowledge of indigenous peoples is viewed by the younger generation as being out-of-date or coming from the elderly (Bolt, Byrne, Hamacher, Harley, Nakata, Neville, Pagnucco, Thorpe, Venugopal, & Warren 2013:9). Ngulube (2002), states, "It is clear that traditional indigenous knowledge would be lost and inaccessible to other indigenous systems and to development workers if it is not recorded and conserved". Younger generations would not have access if traditional indigenous knowledge methods can't be recorded and preserved.

Without incorporating local knowledge, development projects are unable to provide long-term answers to local issues (Warren, 1991: 2). For a development to succeed, it is critical to consider the knowledge of the people involved (Brokensha, Warren, & Werner 1980). Local level development benefits from indigenous knowledge (Schoenhoff, 1993). To build their cultural practices for future generations, it is true that traditional indigenous knowledge practices should be protected and maintained. Also, according to Ngulube (2002), "the application of indigenous knowledge is today regarded one of the pillars that might guarantee the survival of the developing world economy in the aftermath of restricted resources and reduced donor financing".

As Atte (1989: 1), pointed out, "it has been suggested that indigenous local knowledge and the technical expertise developed can become vital tools for rural development in light of the dwindling resources available to African countries and noting that even the richest and most benevolent governments cannot provide in all the needs of the people". Traditional knowledge must be gathered, organized, and

disseminated in the same organized manner as Western knowledge since it is essential to growth (Agrawal, 1995, Gonzalez, 1995; Warren, Brokensha, & Slikkerveer 1993). According to Ngulube (2002), "the key problems to the administration and preservation of traditional indigenous knowledge are concerns relating to methodology, access, intellectual property rights, and the media and forms in which to conserve it. The decision of whether to employ the Western paradigm for gathering and maintaining indigenous knowledge lies at the heart of these difficulties. There is no definitive response to the question, according to research on the techniques for maintaining indigenous knowledge (Ngulube, 2002). Ex situ conservation measures, such as isolation, documenting, and storage in international, regional, and national archives, are advised by other academics (Ulluwishewa, 1993: 13; Warren et al., 1993: 3).

Making sure that everyone may access the material across various platforms should be the responsibility of library and information professionals (Ngulube, 2002). An example is how older generations would have access to information if library and information professionals had maintained and preserved it for use in the future. The indigenous knowledge that has been shared and the information that has not been shared, in Tyler's (1978) view, prevents knowledge from being isolated, communicated, received, stored, and translated to future generations. Similarly, information that has been shared would be readily communicated, received, stored, and translated, but information that has not been shared would remain isolated and not be conveyed to future generations.

Ex situ preservation, or seclusion, documentation, and storage in international, regional, and national data archives, has been the main method for maintaining indigenous knowledge (Brokensha et al., 1980; Warren et al., 1993). In the North-West province of Cameroon, the principle of ex situ preservation approach was successfully put into effect to record folk remedies and natural remedies (Nuwanyakpa, Toyang, Django, Ndi, & Wirmum 2000). The acquisition of indigenous information is, however, time-consuming, expensive, and labor-intensive, according to Lawas and Luning (1996). If the information is to be made public and accessible for the benefit of humanity, proper administration and storage must be developed. Since colonial district officers and early missionaries mismanaged the indigenous knowledge they acquired, it is impossible to retrieve any of the data.

However, if the custodians of traditional indigenous knowledge practices are willingly to pass and disseminate the knowledge they have, scholars and libraries collaborate to gather, collect, store, protect and document, traditional indigenous knowledge practices will be available and accessible for future use. Similarly, custodians of traditional indigenous knowledge practices are happy to get the platforms to pass and disseminate their indigenous knowledge practices before they die, because when they die indigenous knowledge practices disappear with them. This study emphasizes collaboration of indigenous knowledge holders, scholars, and libraries to collect, store, document and distribute traditional indigenous knowledge practices. Furthermore, library, and staff member are expected to work together with the indigenous knowledge holder and create a strong feeling through the collaborative work experiences and socialization processes that would be allowed for participation and teamwork (Hong, 2010).

The management and maintenance of indigenous knowledge practices "are largely contested by the protection of intellectual property rights. According to the definition of intellectual property rights, these are "legal rights that may attach to information originating from a person's mind if that information can be utilized to creating a product that is rendered distinctive and useful by that information" (Ngulube, 2002). There is a growing discussion about how to safeguard the intellectual property rights of indigenous knowledge practices, according to (Posey & Duffield, 1996: 230). Moreover, "indigenous peoples emphasizes the right of indigenous peoples to own and control their cultural and intellectual property pertaining to their sciences, technologies, seeds, medicines, knowledge of flora and fauna, oral traditions, designs, art, and performances"(United Nations, n.d.).

Additionally, "the Economic Commission for Africa urges that oral tradition and indigenous knowledge in African communities should be utilized in all of its forms of expression, giving cognizance of the safeguarding of intellectual property rights". Similarly, indigenous peoples have excellent arts and sciences, but the only thing left to do is to preserve and record the information so they will have it as a resource in the near future.

According to the United Nations (2001: 2), "even though the majority of indigenous knowledge is held in human minds and customs, and is frequently held by

communities rather than individuals, intellectual property rights that are intended to protect the ownership of the intellectual content of an individual's works can be applied". Library and information services, according to Muswazi (2001: 254), "do not adequately handle essential knowledge access challenges". It is understandable that there is very little access to the indigenous data that has been gathered so far because it has not been properly abstracted and indexed (Warren & McKiernan, 1995: 426). Also, "the low level of usage of indigenous knowledge can be attributed to the absence of marketing tactics. In addition, "the low level of application of indigenous knowledge might also be attributed to a lack of marketing tactics. Information specialists have a lengthy history and have significantly improved their knowledge organizing skills during that time (Ngulube, 2002). The growth of information gathering, sharing, recording, and preserving is mostly driven by technology (Hildreth & Kimble, 2002).

The preservation of knowledge that has not been captured and recorded piqued the interest of many scholars, including (Coffman 2010). Through the help of library experts, indigenous knowledge can be maintained in a variety of ways. Indigenous information was typically preserved orally and displayed rather than documented (Sarkhel, 2016). According to Ngulube (2002), "storage of indigenous knowledge should not merely be constrained to text documents or electronic formats". Furthermore, according to Sarkhel (2016:436), "storing indigenous knowledge requires categorizing, indexing, connecting indigenous knowledge to other information, making it accessible, and protecting, sustaining, and growing it for future retrieval. Directories of experts, applications, and abstracts that have been kept and indexed electronically could be included.

It is possible for the memory database to be integrated into a portal like Wikipedia, enabling community members to write together and share articles, videos, photographs, and oral histories (Sarkhel, 2016). Residents, as well as professionals, organizations, and web-based resources are referred to as knowledge preservers (Ngulube, 2010). A written tradition can be passed down from one generation to the next thanks to careful documentation of local knowledge. Local knowledge should be documented to demonstrate many possibilities for a better, more sustainable future. The risk of losing their intellectual property rights to piracy and commercial exploitation is increased for local people because of logical documentation, which

records and preserves orally transmitted information for current and future generations.

It will also be questioned whether the Vhavenda people even exist if they lose their traditional knowledge practices. "The disappearance of indigenous knowledge is not only associated with the loss of a community's cultural asset, but also followed the loss of local wisdom and values that are passed down through tradition" (Primadesi, 2012). Traditional indigenous knowledge wisdom has significant worth. The awareness of the existence of local culture in society is disappearing due to the limitations of indigenous knowledge (Vasconcellos, 2014). This information should be preserved and documented to uphold and sustain indigenous knowledge practices.

Indigenous knowledge in Nigeria refers to unique and customary local knowledge such as horns, drums, stories, etc., existing within and formed around specific conditions of women and men who are indigenous to specific geographical locations. (Christopher, 2015). Preserved through the recording of interviews with resource personnel, the production of microfilm records, the use of cameras to gather indigenous information, and the purchase of indigenous materials by individuals wishing to preserve it (Anyira, et al, 2010). Indigenous knowledge has been passed down "from generation to generation through ancient drums, gongs and storytelling" in several important communities in Nigeria (Christopher, 2015:60).

Furthermore, in accordance's to Okore, et al. (2009:7) "Indigenous knowledge preservation strategies include documentation, digitization, video recording, and provision of internet access." Similarly, Okore et al. (2009) and Christopher (2015) It describes how libraries can support the preservation and promotion of Indigenous knowledge in a variety of ways for increased accessibility, by documenting stories about indigenous knowledge onto audio tapes and videos and publishing indigenous knowledge into books or journals. It is crucial that libraries help holders of indigenous knowledge to conserve and record their knowledge using a variety of documentation techniques so that future generations can track it.

The fact that most indigenous knowledge is oral and that new technologies are constantly being developed puts its preservation in jeopardy, according to Kaniki and Mphahlele (2002). To preserve something is to protect it from being destroyed.

Numerous authors have written about the significance of maintaining indigenous knowledge. For instance, Agarwal (1995), discusses in situ preservation, which is the preservation of indigenous knowledge by local populations for local communities. The use of technology to preserve indigenous knowledge is discussed by Kaniki and Mphahlele (2002). The study's conclusion is that such technology-driven preservation must be considered by library managers to ensure that adequate protocols for developing and preserving indigenous knowledge collections are implemented inside these public institutions. Like that, the fundamental goal of this study is to use technology to conserve traditional indigenous knowledge so that future generations would be able to access it.

Similarly, Mundy and Compton (1991), note that indigenous technical knowledge is a new area of focus in development circles and that an increasing number of scientists and organizations are realizing that it provides practical, locally relevant solutions to development issues that are both affordable and accessible. Gachanga (2005), contends, that while traditional indigenous knowledge is acknowledged to play a significant role in sustainable development and peacebuilding, many governments, funders, and NGOs seem to underutilize this essential resource. They rarely take any action or provide cash in response to their recognition of traditional indigenous knowledge, which frequently amounts to little more than lip service.

2.8 Indigenous Knowledge Preservation in South Africa

To prevent it from being lost to future generations, indigenous knowledge should be preserved in contemporary contexts. It is crucial for the indigenous knowledge holders to teach the younger generations about indigenous customs for them to prosper in the long run. It is also important to conserve traditional indigenous knowledge for future generations (Mpofu & Miruka, 2009). Indigenous communities can maintain their culture and customs by keeping their traditional knowledge alive using specific preservation techniques. According to one theory, "an accurate and proper method of preserving traditional indigenous knowledge could assist both indigenous and non-indigenous people to enter into contracts and agreements that will increase their capacity for communal development and sustainable living" (Nakata & Langton, 2005: 188).

According to Stevens (2008), it is crucial to involve communities in the creation and dissemination of their knowledge when deciding how to preserve indigenous knowledge from a certain group. Indigenous communities should oversee and directly profit from projects to maintain their knowledge systems. To conserve indigenous knowledge systems, it is important to avoid alienating the people who have possessed them. The following are suggested activities that indigenous knowledge centers should carry out, according to the South African policy on indigenous knowledge: Indigenous knowledge centers, like the one at CSIR, are required to gather, preserve, and disseminate data on a variety of indigenous knowledge topics, such as indigenous knowledge in agriculture, health, and the environment. Indigenous knowledge centers should create dependable and affordable methods for recording indigenous knowledge. Interdisciplinary research on indigenous knowledge systems should be managed and organized by indigenous knowledge centers.

Knowledge bearers and other stakeholders should all get education and training on any development in indigenous knowledge systems. Indigenous knowledge system centers should be supported on both a national and regional level. They should work together to develop technical assistance programs and contribute to the formation of policies based on indigenous knowledge practices. As a signatory to numerous international accords governing intellectual property rights, South Africa is required to adhere to the necessary norms. In terms of their policies on traditional indigenous knowledge, several nations, including Brazil and India, have made notable advancements. The Department of Arts and Culture notes that "storing and documenting indigenous knowledge could support with the safeguarding of traditions and cultural heritage for future coming generations, which can be seen as a good element" (2009: 31).

With significant government backing, the indigenous knowledge communities in South Africa must maintain their cultural practices (Department of Arts and Culture, 2009: 31). Preserving traditional indigenous knowledge is important to prevent it from vanishing and being lost. "Indigenous knowledge system was recognised as a vital body of knowledge that should be maintained and nurtured continentally by the African Renaissance and the New Partnership for Africa's Development (NEPAD)" (Sebitosi, 2008: 72). Since most indigenous tribes in South Africa are deprived of the

ability to practice their beliefs due to oppression, it is important for the organization to address this problem by establishing clear guidelines that would allow for the recognition of all knowledge systems.

Local knowledge must be safeguarded and kept for its importance. "The state plays a crucial role in assisting in the recognition of indigenous knowledge by ensuring that there are procedures to document indigenous knowledge so that the importance of indigenous knowledge can be preserved for local people" (Department of Science and Technology, 2005: 19). To keep information from being lost to future generations, the study underlined the need to secure data utilizing existing technologies.

Storytelling, songs, dances, rituals, and folktales are ways that indigenous knowledge can be kept; as a result, preservation efforts should be adjusted for future usage. Digitalization is the only means by which indigenous knowledge traditions may be preserved. Although digitalization makes it more difficult for indigenous knowledge to be understood by younger generations, the likelihood of its spread is higher. Indigenous knowledge is a way that people communicate with one another that involves receiving, preserving, and passing down cultural information orally from one generation to the next (Oral Tradition, n.d.).

Boikhutso (2012:10) suggested that rapid change in local communities is causing the loss of indigenous knowledge systems, and Stiwell (2007), further suggests that it is crucial to investigate various methods that will effectively preserve and disseminate such information. Very little indigenous knowledge has been captured and recorded for preservation in South Africa. Knowing the locals offers strong incentives for developing. For the development, protection, recognition, and promotion of indigenous knowledge, the department of science and technology (DST) has also worked with other government agencies. The establishment of free education and training for indigenous knowledge holders in the expansion of their knowledge is a result of the interdepartmental ties on indigenous policy (Monngakgotla, 2007). To stop the exploitation of native knowledge, many nations have created intellectual property rights. Some nations, however, place a greater emphasis on preserving indigenous knowledge than others, favoring its protection through intellectual property rights, new techniques and learning new things (Al-Roubaie, 2010).

To properly document indigenous knowledge, national indigenous knowledge policies are essential. In many African nations, it is still a problem, though (Msuya, 2007: 4). A crucial factor in setting frameworks for aims and goals is intellectual property and indigenous knowledge policy. It is crucial for governments to actively interact with indigenous populations during the planning and drafting of indigenous knowledge policy. Some government policies are unclear to the local community because of the intricate dynamics involved in the policy-making process and interaction.

The involvement of a variety of stakeholders is a crucial component of the creation and execution of any effective policy (Monngakgotla, 2007: 29). Stakeholders are crucial to the policy's motivation, which affects the capacity justification of the policy. The legislative framework that "ensures and recognizes indigenous knowledge as important knowledge, it enables communities to recognise that they own significant knowledge", according to Monngakgotla (2009:30). A public policy for the governance of indigenous knowledge should be implemented by governments in this regard. In South Africa, the pharmaceutical and commercial businesses have exploited, misrepresented, and showed little appreciation for indigenous knowledge. Thus, it exemplifies the necessity for the government to safeguard and conserve indigenous knowledge in rural communities.

According to Msuya (2007: 7), "the appropriate policies each country needs for indigenous knowledge" include "government appreciation of indigenous knowledge, political commitment on indigenous knowledge, preservation of indigenous knowledge, statement on protection of indigenous knowledge, copyright and patent issues, cross-border indigenous knowledge and how to share it, use of indigenous knowledge, distribution of benefits accrued from indigenous knowledge". Protection is related to intellectual property rights in terms of guaranteeing equitable sharing and placing ownership in the right hands. It is important to comprehend what is meant by intellectual property rights and how these rights relate to indigenous knowledge. This is because most policies prioritize the preservation of indigenous knowledge.

According to the South African Department of Science and Technology (2005: 28), "Intellectual property rights are awarded by the society through governments and

mandated international bodies to individuals or companies over their creative endeavors evidenced in their inventions, musical performance, symbols, names, images, and designs used for commercials". In a similar vein, Berckmoes (2008), describes intellectual property rights as "the legal control individuals have over their creative endeavors. An exclusive right to utilize one's invention or discovery is granted to the rightful owner for a predetermined period. Patents, copyrights, trademarks, and trade secrets all fall under the umbrella of intellectual property rights, which are enshrined in international treaties with legal force.

Most emerging nations deal with knowledge exploitation. As a result, rich nations have patent rates that are 95% or higher, whereas poor nations have rates of less than 5%. Indigenous knowledge is a shared resource that is passed down from one generation to the next, making it challenging to defend using the tools of intellectual property rights as required by trade-related intellectual property rights (HRSC, 2011). Indigenous wisdom has been misused for many years.

In a negative way, this is justified by the claims made by indigenous people all over the world that their heritage, arts, crafts, sciences, literature, medicines, and music are the object of research and, eventually, commercial exploitation by others, despite their lack of financial benefits, respect, and official recognition (Berckmoes, 2008). Protecting indigenous knowledge is thought to be possible with the use of intellectual property rights. Only a small number of nations have prioritized the preservation of indigenous knowledge systems, even though many have implemented intellectual property systems to address the needs of indigenous knowledge (Human Science Research Council, 2011).

It has been determined that South Africa's indigenous knowledge policies are compliant with and practicable under the international agreement on trade-related elements of intellectual property rights (TRIP), which was established by the World Trade Organization (WTO). Several nations' rights and obligations are established by treaties. Additionally, countries participate into this pact to lower obstacles between themselves. It is vital to identify and describe the responsibilities of the various agreements for indigenous knowledge before moving forward. To address challenges of indigenous knowledge all around the world, various international accords have been established.

The United Declaration of the Rights of Indigenous People (UDRIP), the Convention on Biological Diversity (CBD), and travel are among of these. (Mugabe, 1999: 25). When the General Agreement on Tariffs and Trade (GATT) was being negotiated in 1994, TRIPS was one of the agreements that was hotly debated (Mugabe, 1999: 25). The WTO agreement, which was used to sign TRIP, was deemed by most poor nations to not be in line with trade. Due to this, the pact was only supported by a small number of poor nations. The dispute was not discussed during the negotiations. Due to their insufficient resources to improve their capacities, developing nations suffered from this (Mugabe, 1999: 25).

"The World Trade Organization uses TRIP to get quick access to several global markets. Domestic intellectual property laws are standardized globally by this international agreement. TRIP mandates that all its participants uphold the minimal requirements for the protection of intellectual property rights (Mugabe, 1999: 25). The CBD, a treaty of the UN, was the first international agreement to acknowledge indigenous knowledge. Its aim was to lessen biodiversity loss, among other things. For this pact to be effective, South Africa and other nations must safeguard indigenous knowledge and encourage the sustainable use of biological resources.

"The UDRIP is a treaty recognizing the rights of underrepresented indigenous tribes so that they may reclaim their cultural identity" (Mugabe, 1999: 25). A policy on indigenous knowledge systems was developed by the departments of science and technology and arts and culture, and it was introduced in parliament in 1999. An intricate process of study and consultation that took longer than expected was encountered by the interdepartmental task team. In November 2004, the government approved the policy on indigenous knowledge systems.

The policy regulating measures are dispersed among several governmental agencies, including the DST, the DAC, the DTI, and the department of health. The creation of laws pertaining to the indigenous knowledge policy was agreed upon by all concerned departments. According to the Department of Arts and Culture, the national policy to promote living heritage deals with fostering the growth of indigenous knowledge by separating intangible and tangible heritage as well as the legacy of uneven knowledge systems (department of science and technology, 2005:

18). The constitutional requirements and the requirements of the national, provincial, and local governments are all met by the policy mandate.

South Africa's living heritage policy is concentrated on two crucial features, the creation of social cohesion and the preservation of priceless resources for future generations, according to the department of science and technology (2005: 18). A lack of appreciation for cultural diversity during apartheid led to the development of the policy of living heritage. Traditional indigenous communities in South Africa were oppressed, making it impossible for them to live out their identities. It is crucial that the department address this problem by promoting and making clear the policies necessary to recognize all knowledge systems. It is important to safeguard and maintain the value of traditional knowledge.

The state plays a crucial role in assisting in the recognition of indigenous knowledge by ensuring that there are procedures to document indigenous knowledge so that the importance of indigenous knowledge can be preserved for local people" (Department of Science and Technology, 2005: 19). It is obvious that the constitution of "living the heritage" corrects the prior social inequalities in South Africa and directs the community to live out who they are and reflect on their past experiences. Following customs, idioms, techniques, and information passed down from one generation to the next is a component of community practices. The requirement for identification and documentation is demonstrated in the draft heritage policy. This is essential to guarantee that knowledge is kept so that databases of knowledge and information about preserving the heritage may be built (Department of Trade and Industry, 2008).

A framework for policy was developed by the Department of Trade and Industry to guard against commercialization and international exploitation of indigenous knowledge. Protection through intellectual property laws was taken into consideration by the agency. While it is acknowledged that there are numerous methods for protecting indigenous knowledge systems, including the use of intellectual property, sui generis legislation, databases, and registers, in the context of South Africa, an intellectual property system is particularly preferred while the sui generis legislation is still being reviewed.

Since 1978, the department of trade and industry has been involved in the legislation's revisions regarding patents, as well as their content. The World Trade Organization and the World Intellectual Property Organization are both using the Patents Amendments Act of 2005, which is recognized as a model piece of legislation, in a favorable way (Department of Trade and Industry, 2008). Traditional medicine, as a source of revenue through commerce with other nations, is very important to the South African economy, according to the department of health. Despite the positive contributions, traditional medicine is exploited by the pharmaceutical industry, and knowledge holders do not profit from this. For instance, CSIR commercialized a hoodia pharmaceutical product without the San people's consent or their sharing of benefits deriving from the patent and commercialization, with the San people receiving none of the benefits.

To ensure that they have the legal right to partake in the benefits and to preserve traditional indigenous knowledge practices. The Department of Health created a national drug policy that firmly urges the preservation of conventional medicine. The goal of the policy is to guarantee that conventional medicine is incorporated into the public health system. the establishment of a national reference center for traditional medicine, the development of close working relationships with traditional healers, and the provision of oversight over the licensing, education, and practice of traditional healers are the goals (Department of Science and Technology, 2005: 18).

When it comes to developing indigenous policy, the Department of Science and Innovation was then regarded as the senior advisor for all other departments. A report from the indigenous knowledge advisory council is also provided to the DSI. Beginning with a statement that South Africa is committed to advancing, recognizing, safeguarding, affirming, and expanding indigenous knowledge systems, the indigenous policy sets out to demonstrate these goals. The goal is to make sure that indigenous knowledge advances the nation's social and economic progress. The purpose of the strategy, as it is being developed by the DSI, is to encourage various other areas of indigenous knowledge systems study at institutions like the National Research Foundation and support research into traditional medical practices.

The policy document's first chapter lays out the ways in which South Africa should affirm, recognize, and promote indigenous knowledge. The racial segregation that

South Africa experienced under apartheid is the primary cause of this (Department of Science and Technology, 2005). The recognized process-driver in this case is the department of arts and culture. The Department of Science and Technology said that Chapter 1 adheres to "the core South African Indigenous Knowledge Policy, which involves the affirmation of African Cultural Values in the Face of Globalization" (2005: 28). Therefore, a key factor in the growth of South Africa is its cultural identity. Examining globalization's effects on humanity and culture in the modern world is essential.

People from diverse cultures are forced to coexist and work together, and modernity and increased human mobility are all attributed to globalization, which also exploits the poor. Being granted the right to self-determination by globalization is one of its benefits for indigenous people. South African policymakers are required under the constitution to guarantee the provision of these rights. A commission is required to be constituted to advance and defend the rights to culture, language, and religion per section 185 of the constitution. The panel was mandated by law and established in 2002 (Department of Science and Technology, 2005: 28).

Traditional medicine in South Africa is one of the most affordable forms of healthcare, making it accessible to even the most impoverished people. South Africa's national healthcare system is built and shaped in part by the traditional healers who live there. According to the WHO, there are important issues that have an impact on the practice of traditional medicine, including national policy, regulatory frameworks, safety, quality, crucial extension, and access to making traditional medicine available, as well as ensuring appropriateness and cost-effectiveness of traditional medicine. The healthcare system is ultimately under the department of health's control.

In 2007, the traditional health practitioners' legislation received approval from the South African government through the department of health. The traditional health practitioners' council is what it seeks to establish (Department of Science and Technology, 2005: 28). To expedite the public involvement process, the traditional health practitioner act must first be passed while adhering to South Africa's constitution. The act was created to create a framework that will ensure the quality, safety, and efficacy of traditional healthcare services and to provide management

and control over traditional health practitioners beyond the requirements of registration and training.

The idea that traditional health practices, like initiation and virginity testing, should be regulated is condemned as potentially infringing human rights and bodily autonomy. The Limpopo Circumcision Schools Act 6 of 1996, which regulates and controls the circumcision schools throughout the province of Limpopo, is one of the laws that now deal with initiation and virginity testing. The Children's Act 38 of 2005 grants every child in South Africa the freedom to decline having their virginity tested and having their hair cut, but (Hassim, Heywood, Berger., 2007: 208).

Impact of indigenous knowledge on the economy indigenous knowledge innovation is viewed as a crucial component of long-term poverty reduction and as having a large economic impact. It has been said, nonetheless, that due to a lack of incentives, it is unable to generate substantial macroeconomic growth. Even though it is not fully considered in contemporary knowledge systems, indigenous knowledge nevertheless plays a significant part in South Africans' ability to maintain sustainable means of subsistence and has enormous potential as a source of creativity.

The research and development linear model of innovation is frequently used by knowledge producers, including research institutes, universities, and national laboratories, to distinguish traditional productions. The extended public works program of the government, which employs indigenous knowledge to eradicate poverty, has advocated programs based on an indigenous knowledge system. When indigenous knowledge is expected to boost the economy, consideration should be given to elements including the development of incentive systems, promotion of indigenous knowledge for sustainability, and promotion of indigenous knowledge as a source of job creation (Department of Science and Technology, 2005: 28).

It may be possible to develop new goods and methods of doing things by integrating indigenous knowledge with other knowledge systems. The policy document states that more than \$32 billion US is made annually from sales of pharmaceuticals based on conventional medicine. Therefore, it is obvious that South Africa cannot ignore indigenous wisdom. According to the policy document, there are important factors that promote cooperation between indigenous knowledge systems in South Africa and the country's national innovation system. These factors include legislation that

ensures minimum standards of information, a material transfer agreement for indigenous knowledge research, the creation of a formal record system, and a framework for benefit-sharing in law.

The need for integrating indigenous knowledge systems into the country's educational systems is demonstrated by indigenous policy. Indigenous knowledge is an excellent attempt to encourage lifelong learning because it contains wisdom and hence interacts with other knowledge systems to thrive. Innovation results from the new method of doing things. Incidentally, indigenous knowledge has successfully influenced innovation processes in certain nations, like Japan and India. Where indigenous knowledge is incorporated into the educational system, a new curriculum must be created to recognize the importance of indigenous knowledge, particularly in the field of science and technology. Even if Western knowledge predominates, indigenous knowledge must be transferred using appropriate procedures in a variety of learning environments (Department of Science and Technology, 2005: 28).

South Africa should include indigenous knowledge into its educational system since the Western setting has influenced its education and development programs. The national qualification framework ought to make sure that indigenous knowledge is implemented in other kinds of learning as well as schools or other higher education institutions that are the primary targets. The department of education needs to start acting to gradually integrate indigenous knowledge into the curriculum and appropriate accrediting framework. As stated in the White Paper on Scientific and Technology, the DST promotes socioeconomic growth by integrating the science and technology policy into a larger effort to create a national innovation system (Department of Science and Technology, 2005).

In his 2007 book, Monngakgotla made the case that certain emerging nations still uphold the intellectual property regulations put in place by their former colonial masters. Native knowledge bearers must be able to plan, make decisions, and manage indigenous knowledge systems for indigenous knowledge systems to be effective, according to indigenous knowledge systems (Department of Science and Technology, 2005). As a result of this study, bearers of indigenous knowledge are now supporting the preservation of their practices. To help indigenous knowledge

bearers maintain their way of life, this project has been designed to record indigenous information.

It is via this study that indigenous knowledge bearers have been managed and have conquered the obstacles of losing traditional knowledge. According to Domfeh (2007), it is crucial for bearers of indigenous knowledge to legitimize and acknowledge the preservation of indigenous knowledge systems in the development of rural communities and harness skills for the benefit of everyone. Indigenous knowledge keepers have been entrusted with the responsibility of protecting indigenous information, and some are experts who guard esoteric knowledge.

Indigenous knowledge can be seen of as a hereditary system of learned awareness and competence that permits wisdom to be obtained and tools to be built, as needed, from the materials at hand. Indigenous knowledge keepers have frequently undergone extensive training to connect various aspects of traditional narratives to occasions and places, and cultural coherence is guaranteed by routine repetition (Vansina, 1985). Indigenous peoples' honed skills have been passed down through centuries and are kept in communal teachings and collective memory: This knowledge is applied in the context of the social ideals and philosophies of the tribe. The fact that native science is not divided into specialized fields does not imply that it is not based on reason; rather, it is based on the conviction that everything is interconnected and must be understood as such.

According to Cajete (2000: 3), states that "native science is the collective inheritance of human experience with the natural world; in its most basic form, it is a map of natural reality created from the experience of thousands of human generations. While most scientists in the West would go to great efforts to dispute such inclusivity, native science can be said to be "inclusive" of modern science in that it has profoundly contributed to the diversity of human technology". Indigenous knowledge is a type of traditional information that can impart, carry, and support other knowledge, whether it is shared through historical or mythical storytelling. The collective memories of ethnic, tribal, and kinship groupings are preserved through traditional indigenous knowledge, which is formally referred to as "relating to the whole society" (Vansina 1985:19).

2.9 Impact of Western knowledge in traditional indigenous knowledge practices

Because they viewed indigenous cultural practices and territory as public scientific property, Western practitioners constituted a major danger to their integrity. People have been imprisoned in a vision that "does not connect with either our oral traditions or our actual reality" because of these ideologically loaded colonial distortions (Smith 2012: 172). The South African constitution enshrines the right to take part in cultural practices. The right to dignity is guaranteed to its residents. When local children were forbidden from attending the so-called "bush school," the church utilized exclusionary practices to prevent them from returning to formal education. Younger generation immorality is caused by the erosion and degradation of cultural practices. Most of the today's youth are not interested in traditional rituals like initiation ceremonies.

Rafapa (2013: 118) claim that Western culture has now "ruled and taken precedence over indigenous cultures, significant fear is that African indigenous culture has faded away," and that soon *Vhavenḁa* culture will be categorized as history and indigenous communities would be made "cultureless". The integration of indigenous African culture into Western society has had a significant impact on indigenous communities as well as on indigenous families as a unit.

According to Langton and Ma Rhea (2003), education is crucial to the conservation and preservation of indigenous knowledge. It has helped to codify traditional knowledge in a form that will make it easier for future generations to access it. One of the cornerstones of the capacity of indigenous knowledge holders to promote, safeguard, and encourage the right use of their knowledge is the documenting of indigenous knowledge, as indicated above. The ability of these communities to create economically viable livelihoods has been strengthened by accurate documenting of traditional knowledge practices.

2.10 Knowledge Management

According to Ngulube and Lwoga (2007), knowledge management is widely used by companies and industries, has a wide range of objectives and can help indigenous peoples. In order to effectively preserve local knowledge, it is important to involve communities both in the production and dissemination of their knowledge. According to Stevens (2008) at page 29: "Projects to preserve Indigenous knowledge

communities must be led by Indigenous communities and provide immediate benefits to communities. While it is important to preserve local knowledge systems, this must be done without affecting the indigenous peoples who keep it alienated. Ngulube and Lwoga (2007: 120) state that knowledge management is "associated with formal organizations such as colleges, schools, banks and law firms, whose structure, missions and objectives are shared by members of the organization".

Similarly, Akinwale (2012: 5) defines "indigenous knowledge management as a method by which communities collect, control and disseminate their indigenous knowledge to meet specific local needs". Once indigenous information can be controlled, disseminated, and collected, it will also be easier for the next generation to identify their lineage and place themselves in the world. The use of conventional and contemporary methods is part of the management of indigenous knowledge. Word of mouth, storytelling, folklore and community practices are examples of traditional techniques, while all social media platforms are examples of modern techniques. Since unspoken assumptions can vary from culture to culture, it is important to disseminate knowledge with extreme caution. The affirmation of implicit knowledge constitutes the basis of indigenous knowledge. Sillitoe (1998: 247) argues that the paradigm 'promotes tacit understanding and social engagement rooted in collectivist cultural norms'.

Sillitoe (1998) further disparages indigenous knowledge, saying it is hard to maintain and stagnant. According to him, knowledge "is fluid and constantly changing, reflected and renegotiated between people and their contexts. Toulmin (1996) argues that the influence of local information systems does not pose a threat to current knowledge, but should be seen as complementary. . Local knowledge can be beneficial to growth, even though it is increasingly recognized and accepted. The emphasis used to be on top-down improvement, but now the emphasis is on the grassroots level. According to Sithole (quoted in Mapara, 2009), "traditional knowledge is subject to change because it is mainly stored in people's minds and is passed down from generation to generation orally rather than in writing". The traditional wisdom of the local people is also under threat.

The knowledge stored in people's minds is not always accessible as a person may decide not to share the knowledge he has if he is ignorant or if he does not trust

them. The study is needed to protect traditional indigenous knowledge practices from harm and prevent them from being lost for later generations. Kaniki and Mphahlele (2002:19) advise that "indigenous knowledge should be explored at the community level, with recording and exchange within and between local communities". They argue that there are certain levels where indigenous knowledge can be managed and acquired using ICT or knowledge management ideas. Due to the nature of indigenous knowledge, not everything can be transferred.

Unlike scientific knowledge, which can or should be mastered in this way for all knowledge, indigenous knowledge cannot always be. Consequently, there are several rules that must be followed to successfully manage and protect indigenous knowledge. Due to the diversity of views among community members on Indigenous knowledge, it is crucial to evaluate traditional methods of Indigenous knowledge at the community level. Some people consider ancient indigenous knowledge techniques to be sacred, but others consider it obsolete information that has no place in today's culture. As academics, it is our responsibility to educate the public on the importance of traditional indigenous knowledge techniques. It must be possible for the younger generations to understand how fundamental it is to be aware of one's origins and sense of place.

For the community members to communicate, reveal, and make available to academics their traditional indigenous knowledge practices, there needs to be a greater understanding of these practices. As the elderly age, they leave behind this vital information, so it is imperative to educate the community about the need of sharing what knowledge they have for the benefit of the next generation. Younger generations urgently need to be made aware of ancient indigenous knowledge methods, according to this study.

This study allows for the documentation of traditional indigenous knowledge practices employing various concepts, allowing for the identification of those activities. The potential of the *Vhavenda* people's traditional indigenous knowledge can be demonstrated in a similar manner. Additionally, it will encourage the community and indigenous knowledge bearers to share the traditional information they possess so that it can be kept, saved, protected, and recorded for future generations.

According to Ngulube (2002: 96), "inadequate management of indigenous knowledge has resulted poor the loss of the majority of the indigenous knowledge gathered by colonial district administrators". This study may also provide the community members with tools for managing, storing, safeguarding, recording, and documenting their insufficient indigenous knowledge. According to Snyman (2005), "knowledge management concepts need to be predetermined for a successful institutionalization of knowledge management methods in the community. Tacit knowledge, which is silent information used to form opinions, judgements, or interpretations, is challenging to record because, for instance, we might not immediately recognize it as knowledge or the idea we would like to record is challenging to describe. Due to its lack of recording and articulation, tacit knowledge is conceptually regarded as indigenous knowledge (Sekabembe, 2013).

"In South Africa, indigenous knowledge began to emerge and gain acknowledgment in 1994, following the fall of the apartheid regime. This claim is confirmed by Akenji (2009), who noted that, after 1994, indigenous knowledge became a crucial part of the reorganization of South African science and technology. Under the sponsorship of the portfolio committee on arts, culture, science, and technology, South Africa's first national workshop on indigenous knowledge took place in 1998. (Nel, 2005; 2006).

The importance of African knowledge systems in the creation of knowledge was also mentioned by Thabo Mbeki, the former president of South Africa, in a 2003 essay in the Mail and Guardian, according to Akenji (2009: 26). Section 17(2) subsection (g) of the Disaster Management Act of 2002 also acknowledges the significance of indigenous knowledge (Department of Local Government, 2002).

According to the act, the electronic database created by the national disaster management center must have a wealth of data on catastrophes that have occurred or may occur in Southern Africa as well as information on disaster management-related topics, including data on indigenous knowledge. The relevance of indigenous knowledge systems in aiding problem-solving across all sectors was also acknowledged in the national curriculum statement (2003: 4). It demands that teachers include indigenous knowledge systems into their instruction.

Rengecas (2010) claims that the government approved the indigenous knowledge systems policy in 2004. This approach gave South Africa a solid foundation on which to recognize, comprehend, incorporate, and promote its indigenous knowledge resources. The 2004 policy also mandated that several government agencies study the nation's laws and adjust them to safeguard traditional knowledge in South Africa.

2.11 Documentation of traditional indigenous knowledge

"Attitudes toward the documenting of indigenous knowledge practices are feelings and dispositions of individuals toward recoding their indigenous knowledge practices either in written, audio, video, database, and any other ways" (Issa, 2018:5). According to Issa (2018: 5), "the oral nature of indigenous knowledge along with the oral mode of transmission is one of the reasons why some of the people are still expressing unfavorable attitudes towards documentation of their knowledge."

Because it is in indigenous people's thoughts, the *Vhavenda* people's knowledge of crucial information lacks references. The information that the *Vhavenda* have is not recorded or written down, and if we don't consult indigenous knowledge holders, it will be challenging for us to access that crucial knowledge. As a result, the information that the *Vhavenda* have be seen as having negative attitudes toward other people. Because of this, some people, particularly those who adhere to Western culture, dismiss indigenous knowledge as unscientific and unspoken.

"Some people still purposely exclude some information when they record their knowledge because they think that information should be preserved in the elders' memories, where it would eventually vanish due to memory loss and death" (Lwoga, Ngulube & Stilwell, 2010). According to Issa (2018:5), "the knowledge in some circumstances belongs to individual, family, and entire community and it is believed that when such is documented, they have lost their individual, family, or community history hence leading people to be secretive about their indigenous knowledge". To protect their knowledge from being passed on to other families after marriage, some traditional healers won't even share their native knowledge of healing with select family members, especially their daughters (Tabuti & Van Damme, 2012).

Indigenous knowledge keepers in the traditional sense believe they would be selling their treasure if they shared their knowledge with others. Our senior folks were

terrified when Westerners first came to our country since they now control every aspect of life here and treat us like serfs even though we are the landowners. Indigenous knowledge keepers from the *Vhavenda* tribe were unaware that retaining this knowledge would be detrimental to the next generation because, after the elders pass away, this knowledge will no longer be accessible for use by subsequent generations.

Furthermore, according to the World Indigenous Peoples Conference on Education (1999), "indigenous knowledge holders have experienced the pain of losing their valuable knowledge inherited from their forefathers and are now clamouring for establishment of database to document their indigenous knowledge". As elders pass away and the younger generations show little interest in learning and passing down indigenous knowledge, some aboriginal communities in Australia have expressed the opinion that one of the main reasons for their support of databases is to ensure the transmission of their knowledge to future generations. Databases are seen as a tool that could be used to perpetuate their ancestors' knowledge (Christie, 2004).

In 2000, the Indigenous Women's Biodiversity Network reported that "some indigenous women have called upon the parties to the convention on biological diversity held in Spain to provide adequate structural, technical and financial support to document and preserve women's knowledge of biological diversity; this request revealed the willingness of some indigenous peoples to document their knowledge for preservation purposes."

Indigenous knowledge can be documented using technology as well as more conventional writing techniques. Local people, according to Tagle (n.d.), are enthralled using digital technology in their societies. They add that in response to the loss of their information, they documented their intention to employ machinery as a means of achieving their goals and resolving their own, internal, cultural issues. According to UNEP (2005:5), "some indigenous are increasingly employing technology to document and protect their intellectual property rights; for instance, the Subanen community in the south of the Philippines used encryption tools, differential levels of access rights, and copyright in the documentation project of their indigenous knowledge."

Different methods, including writing in books and employing both basic and sophisticated technologies for documenting, can be used to preserve traditional indigenous knowledge. There are challenges with local information documentation, particularly in underdeveloped nations. The disadvantaged information beliefs and personal traits were identified by Lwoga, Ngulube, and Benson in 2008 (age, gender, status, wealth, political influence).

Lack of prior education and inadequate technical knowledge (Msuya, 2007); concerns about exploitation (World Intellectual Property Organization, n.d.); and improper coordination of documentation (Sithole, 2006). The design of African libraries and documentation centers as an obstacle to the documentation and effective management of indigenous knowledge is just some of the problems that hinder the documentation and management of indigenous knowledge (Nyana, 2009). Another problem is the belief among holders of indigenous knowledge that their traditional methods are no longer necessary and need not be recorded.

The results of this study indicate that *Vhavenda* indigenous knowledge bearers have a favorable attitude toward documenting their traditional knowledge. They held the view that recording traditional indigenous knowledge practices in writing and through other means would save the knowledge from extinction. Librarians and other documentation professionals should teach indigenous knowledge bearers the importance of using technology, particularly their cell phones, which may be used to record audio and capture pictures of their indigenous knowledge to keep it from vanishing. The World Intellectual Property Organization (WIPO) asserts in 2017 that "proper documentation of indigenous knowledge generates a written cultural heritage that can be passed down from generation to generation". According to Giorgia (2016), the archiving of indigenous knowledge "should offer significant potential for better and more sustainable future."

Moahi (2005) argues that "traditional indigenous knowledge practices are recorded and preserved for their prosperity and, when codified, can be used by non-patent holders to obtain patents." Because it's formalized, the group that owns the knowledge claims it's their intellectual property and you can't use it. Ikoja-Odongo (2009) argues that successful methods for documenting and preserving indigenous knowledge include datasheets, photographic and video documentation, and audio

and video recordings. However, challenges in documenting indigenous knowledge are due to lack of funding, lack of researchers with the required skills, obstacles preventing rural residents from accessing information technology, and problems with intellectual property rights (Moahi, 2005).

Indigenous knowledge is transmitted from one generation to another through habitual socialization practices by elders of indigenous cultures, states UNEP (2009). The validity of this information exchange system is currently being questioned due to the development of Western culture, higher levels of interaction between different cultures and the passage of knowledge custodians. According to the African Ministerial Council on Science and Technology of NEPAD (2009), even though Africa has a very large share of indigenous knowledge, indigenous knowledge and technologies are not effectively promoted and preserved. In addition, most countries do not have sufficient safeguards for the rights of people holding indigenous knowledge. Weak links exist between official research and development and the regional communities that own and use the information. Difficulties in recording indigenous knowledge include problems with collection, recording and documentation, storage issues, concerns over intellectual property rights, recording and dissemination of indigenous knowledge and use of technologies information and communication (Tella 2007). Most Indigenous knowledge is tacit, distinctive, unsystematic, arises from local experimentation, innovation, creativity, and skill challenges to link Indigenous knowledge with other knowledge systems and experiences, and is anchored in the thoughts and activities of the communities with a long and close collaboration. History interacting with the natural environment across cultures and geographical spaces (Ngulube 2002:95).

Research on Indigenous African knowledge is held in databases of both national and international institutions, according to Warren et al. (1993). The material in these databases is systematically classified. Similarly, Warren et al. (1993) argue that the acquisition and preservation of indigenous knowledge should go hand in hand with the dissemination and sharing of that knowledge among interested parties through newsletters, magazines and other media. According to Lwoga and Ngulube (2008), information and communication technologies are an essential tool for enabling the management and integration of external and indigenous knowledge in developing countries. However, the point of view of Malhan and Gulati (2003) seems to diverge.

They claim that the problem of the digital divide makes it more difficult to properly manage Africa's indigenous knowledge and the use of information and communication technologies.

They drew attention to the fact that many farmers in sub-Saharan Africa have no opportunity to thrive in knowledge-based societies as the digital divide in these countries widens. The current situation is due to inequalities in digital diffusion, which also affect technology, the economy and education (Malhan & Gulati, 2003). Malhan and Gulati (2003) further assert that the destruction of indigenous cultures and the violation of intellectual property rights of indigenous peoples result from the documentation and dissemination of indigenous knowledge through information and communication technologies. They advise African governments to develop appropriate intellectual property rights (IPRs) and regulations that protect indigenous knowledge to manage it effectively through knowledge management techniques. They also recommend improving information and communication technology infrastructure.

However, according to Aluma (2010), traditional knowledge of medicinal plants, herbal formulas and diseases treated (in humans and livestock), crop protection and food preservation continued to be documented, although randomly. He goes on to say that much of the background information was obtained from the perspective of practitioners "as is" and that there are eyewitness accounts of indigenous knowledge that worked. However, funding for their publication for distribution to others has not yet been secured (Aluma, 2010). Due to the fact that different authors have different views on how to manage the knowledge of African aborigines, this raises the question of how this knowledge can be published publicly. According to a review of the literature, the most significant efforts to record indigenous knowledge in Africa are taking place in the developed world.

According to Lwoga et al. (2010) store in a sort of permanent record and provide free access. When well documented and widely used, indigenous agricultural practices serve the dual purpose of being preserved and being a powerful tool for research and innovation. This is perhaps the main purpose of special libraries. According to Lwoga et al. however, research libraries have not been particularly active in maintaining traditional African knowledge. (2010). Nakata and Langton (2005) argue

that libraries need to view Indigenous knowledge as a contemporary body of applicable knowledge and not just as part of historical records. Since traditional methods make it difficult to identify, trace and preserve indigenous knowledge for future generations, there is also a need to preserve and document indigenous knowledge using modern methods.

Furthermore, according to IIRR, "African indigenous knowledge could be documented in the form of descriptive texts such as reports, inventories, maps, matrices and decision trees, audio-visual materials such as photos, films, videos or audio cassettes, plays, stories, songs, drawings, seasonal pattern charts, daily calendars, etc. In addition, indigenous knowledge may be stored in adjacent communities, databases, map catalogues, books, newspapers and other written resources, as well as in films, museums, etc. and other places (IIRR, 1996). Libraries and information centers were responsible for all this work. Illnesses such as colds, fevers, ulcers, diabetes, malaria and bone fractures have been reported to be treated with this knowledge in African communities (Baronov, 2008). Indeed, there is a common understanding of the healing properties of locally available materials. Young people need to be exposed to this knowledge to retain it (McNeely, 1999).

Similarly, Sithole (2006) supports the documentation of indigenous knowledge through a coordinated mechanism, which should be able to inform different actors about what other members are doing and provide a platform for the exchange of best practices and lessons learned in the different approaches taken. According to Sithole (2006), African communities should develop partnerships that bring together different organizations and institutions with comparative advantages in many areas of documentation to cope with the high costs of documentation. Documenting traditional knowledge can be expensive and out of reach for many people. Indigenous knowledge can be documented with the help of academic institutions, governments, researchers, industry, Indigenous professionals and other stakeholders. Furthermore, Sawyerr (2004: 20) "emphasizes the need for research infrastructure, such as laboratories, equipment, libraries, and an effective system for storing, retrieving and using information; appropriate management systems."

The implementation of "broad social policies and practices that promote and facilitate the flow of knowledge and reward innovation and research" is what Sawyerr (2004:

219) promotes. According to the United Nations (1992), the formulation of policy guidelines for the indigenous knowledge system should be entrusted to a ministry, department or other public organization. Furthermore, according to Sawyerr (2004: 20), 'there is a need for official policies that strengthen the market by ensuring that higher education and research receive adequate investment from public and private sources'. The responsibilities to be performed, such as inventory and record keeping, as well as who will carry out the process and who will monitor the development, should be described in these guidelines (United Nations, 1992). Furthermore, Ezeanya (2015) calls for legislation to be passed to promote and protect indigenous knowledge.

Documentation is the most popular method of preserving traditional indigenous knowledge. According to WIPO (2011), documentation of TK and TCEs offers several benefits, including the protection of secret and sacred records, the use of TK databases for research and development, and the prevention of their diversion prevents erroneous patenting and provides positive protection by allowing traditional patent holders to capitalize on their traditional reputation. Because of their knowledge and skills, libraries and information workers can play an important role in supporting Indigenous communities in the management and preservation of traditional knowledge by providing resources and expertise in the areas of collection, organization, storage and retrieval" (Stevens, 2008: 25). The Rarians can make a significant contribution to the management of indigenous knowledge.

Documentation of traditional indigenous knowledge can be encouraged by librarians and libraries to maintain, preserve and prevent its exploitation and misappropriation. For this reason, according to Ebijuwa (2015: 3), "indigenous knowledge practitioners, library and information managers are essential experts in documenting local knowledge for posterity". Four radio stations and two television stations serve Zimbabwe, and broadcasts are in both the official and regional languages of the country (Chisita, 2011). This is supported by a study in Nigeria by Anyira et al. conducted study confirmed. (2010) in which participants noted that radio and television broadcasts would make traditional knowledge accessible to indigenous peoples. Almost all participants also agreed that the provision of mobile library services, films, exhibitions, outreach services, the lending of indigenous knowledge materials, the provision of online access to indigenous knowledge and the

repackaging Indigenous knowledge in libraries improves the accessibility of Indigenous knowledge for Indigenous peoples would improve (Anyira, et al., 2010).

Communication and information gathering practices have changed due to easy access to social media platforms which people can now use whenever and wherever they want. Social networks provide librarians with many opportunities to develop, manage and share content. Therefore, Owiny, Mehta and Maretzki (2014) suggest using social media and mobile technology to create, preserve and disseminate indigenous knowledge to reach a wider audience. In preserving indigenous knowledge, it is essential to recognize and protect the distinctiveness of the indigenous community. According to Okore, Ekere, and Eke (2009), libraries that manage native information should view themselves as custodians rather than owners.

It is essential that libraries think carefully before digitizing Indigenous materials, including "whether or not you want to digitize a community's culture or history, you have to ask yourself whether creating these collections will help in the process of strengthening of identities communities" (Stevens, 2008: 27). In fact, Indigenous knowledge communities are legally empowered to own and control their traditional Indigenous knowledge. Managing how traditional indigenous knowledge is used and how and who else can acquire it after it has been passed on to libraries or other outsiders, without establishing legal property rights, is a challenge for the indigenous knowledge community. Indigenous knowledge generally belongs to communities and should therefore be used for the benefit of these groups. As this knowledge must be recorded and used, permission must be obtained in a way that respects the wishes of communities and is reciprocal (Ebijuwa, 2015: 7).

Despite all the benefits, especially from the perspective of indigenous peoples and local communities, documenting indigenous knowledge remains a challenging endeavour. For the community to receive the information, traditional indigenous knowledge must be transmitted through social media, several television channels, different radio stations and online access. The easiest way for communities to communicate and share information is through social media. Libraries and higher education institutions should help communities and others knowledgeable about indigenous cultures to develop online communities where they can share their

traditional knowledge. Indigenous knowledge holders need to be made aware of the importance of sharing their traditional knowledge with these institutions, as this will discourage them from withholding information out of distrust of the people who receive it. This exchange of conventional indigenous knowledge should also be promoted by libraries and universities.

Libraries and colleges should refute the idea that the transmission of information is for the benefit of the recipient and to preserve and document Indigenous knowledge for future generations to trace. Those who hold indigenous knowledge should be made aware that it is at risk of being lost unless it is recorded or otherwise documented. The need to preserve and protect traditional Indigenous knowledge should be made clear to our social media groups as soon as possible. This should make it easier for social media organizations to create platforms, time slots and programs to share and disseminate Indigenous knowledge practices. Owners of indigenous knowledge should consider it a privilege to be invited to speak on social media, television and local radio to educate the public and the next generation on the appropriate use of their knowledge.

This could help establish fruitful partnerships between those who hold traditional indigenous knowledge and libraries and academic institutions. The *Vhavena* people are found in large numbers in the *Vhembe* district. The practices related to indigenous knowledge can be broadcast on various local radio stations before being broadcast on all television channels and international channels. This project aims to preserve traditional Indigenous knowledge practices and has the potential to open doors for Indigenous knowledge holders to share their invaluable knowledge with the next generation. It is important that local people, academic institutions, libraries, social media organizations and indigenous knowledge holders work together to preserve and document traditional indigenous knowledge. As Okore, Ekere & Eke, 2009 rightly points out, a significant amount of indigenous knowledge exists among many indigenous peoples in the developing world, but just because something exists does not mean it can be used or accessed.

Additionally, Okore, Ekere and Eke (2009) identified several ways in which libraries could facilitate access to Indigenous knowledge by encouraging face-to-face interactions between members of the Indigenous knowledge community and other

members of the community on issues that are beneficial to the community. Similarly, Stevens (2008: 29) provides an appropriate illustration to further discuss the issue of accessibility, usefulness and recognition of the indigenous knowledge community. He notes that “indigenous knowledge communities sometimes wish to register indigenous knowledge about plants so that pharmaceutical companies using these plants for product development recognize the prior use by indigenous communities and benefit them accordingly.”

Similarly, Stevens (2008: 29) addresses the issue of accessibility, usefulness and recognition of the indigenous knowledge community with an apt example, noting that "indigenous knowledge communities sometimes wish to record indigenous knowledge on plants for pharmaceutical companies to use." indigenous knowledge while providing the necessary safeguards is essential. Another issue is the documentation and accessibility of traditional indigenous knowledge, especially when digitized. Search interfaces should be simple and allow users to search and navigate using images and other non-text elements, because indigenous knowledge users in indigenous knowledge societies may have low computer literacy (Stevens, 2008). According to Jabulani (2006), documenting traditional indigenous knowledge is crucial and a legitimate method to validate it and protect it from biopiracy and other forms of abuse.

2.12. Significance of 4th Industrial Revolution (4IR) in traditional indigenous knowledge preservation

Traditional indigenous knowledge practices are frequently disregarded and considered "primitive" or "inferior" by Western knowledge. The legacy of a hegemonic perspective of European knowledge systems has left African communities with the burden of dealing with and being comfortable with a technology that makes no reference to their cultural experiences and practices. Traditional indigenous knowledge processes inside the communities were disrupted and dispersed by Western imperialism. Africans must work to reclaim and rediscover their old indigenous knowledge methods as the Fourth Industrial Revolution (4IR) comes into full swing.

In his analysis of the socio-cultural battle against European dominance and its seeming successes or advantages, Ngugi (2003: 5) writes, "...arising from the

dialectically linked benefits and disasters of capitalist modernity was the development of a world that represented the West". To maintain the practices of traditional indigenous knowledge, Africans must embrace the Fourth Industrial Revolution. As it alters the real and virtual worlds we live in, the Fourth Industrial Revolution is also altering how we live, work, communicate, and value the things we own and how we value them. It is also altering our relationships, opportunities, and identities.

One of the objectives of the African Renaissance concept as a new vision for Pan-Africanism in the 21st century, is to highlight the fact that, faced with the challenges of globalization and the dawn of the Fourth Industrial Revolution (4IR), Africa needs time and space to reconstruct the nearly destroyed African village, the morality, the philosophy, the wisdom, the culture, and the political philosophy of African civilization (Vilakazi 2001). This study emphasized that as humankind sharing the same space, there is a need to find a way of blending the traditional indigenous knowledge practices with the modern way of life. Africans must be able to survive the trials and tribulations of underdevelopment, globalization, and the Fourth Industrial Revolution (4IR), it needs to learn to reference their socio-cultural and economic development strategies on its own cultural and develop confidence to interact with modern science and technology.

In this work, contemporary preservation techniques are combined with traditional indigenous knowledge practices. The only way to preserve, transmit, and spread indigenous knowledge to the next generation is to integrate traditional indigenous knowledge techniques with modern science and technology. Today's most potent mechanism for information dissemination is the Fourth Industrial Revolution. Every organization and person must adopt the Fourth Industrial Revolution on a global scale to survive and adapt to modern life. The Fourth Industrial Revolution offers a remedy for the paralysis of indigenous knowledge by Western knowledge and a means of passing on to the next generation the practices of indigenous traditional knowledge.

We are now able to complete tasks more quickly, easily, and effectively thanks to the fourth industrial revolution. More opportunities for our personal growth have also been given to us and presented to us. Because of the Fourth Industrial Revolution,

which is here to stay and has advanced us, we are on the verge of a dramatic systemic transformation that calls for constant human adaptation and embracement. Accepting the Fourth Industrial Revolution may improve our communities in several ways, but it also raises several ethical questions. Society is being pushed to new ethnic frontiers because of technological growth. A new course must be taken, and a paradigm shift is necessary if traditional indigenous knowledge processes are to be preserved. The report urges consideration of further avenues for investigating preservation techniques.

2.13. Tools for preserving traditional indigenous knowledge information and Communication Technology (ICTs)

Tools from the field of information and communication technologies (ICTs) are essential for increasing the accessibility of traditional knowledge systems and their fusion with current scientific and technical knowledge (Frederick, 2012). The term "information and communication technology" (ICT) refers to both digital and analogue technologies, such as computers, information networks, and software, as well as telecommunications technologies like telephone, cable, satellite, and radio. Many academics have endorsed the use of information and communication technology technologies to preserve traditional indigenous knowledge.

This study demonstrates that the application of information and communication technology ensured the sustainability and preservation of indigenous knowledge practices for use in the future. According to Dlamini (2016), ICTs have the capacity to manage information and facilitate various forms of communication between industries, between people, and between electronic systems. Additionally, Adams (2007) points out that the use of ICTs is to record, save, and transmit indigenous knowledge to protect traditional wisdom for the next generation. This study confirms that the use of ICTs by the younger generation should attract and pique their curiosity in discovering indigenous knowledge practices.

Ocholla and Dlamini (2017), assert that information and communication technology (ICT) tools have the potential to support knowledge preservation through a variety of technologies that combine microelectronics, computer hardware and software, and optoelectronics, which enable processing and can store significant amounts of

information. It's crucial to use information and communication technology tools in the right ways to encourage the transfer of traditional indigenous knowledge and the integration of modern scientific and technological understandings with traditional knowledge (Lishana, 2013).

Although adopting information and communication technology tools is thought to be the best way to conserve traditional indigenous knowledge practices, using them comes with some difficulties. According to Yunnus (2017), not all parts of traditional indigenous knowledge practices can be preserved as artifacts using digital technology and gathering knowledge from traditional indigenous knowledge owners requires time and money. Adams (2007), also expresses caution about the use of information and communication technology, noting that it takes time and money to get data from indigenous knowledge holders. Although it takes time to use ICTs, this is seen as the best way to conserve traditional indigenous knowledge methods.

Adams (2013) adds that by utilizing a variety of technical instruments, information and communication technology tools help to increase the accessibility of traditional indigenous knowledge. These tools include USB drives, CD-ROMs, DVDs, VCDs, magnetic tapes, and video tapes, among others. They are considered appropriate due to their capacity to store significant amounts of static and moving images. Ilo (2012) notes that mp4 devices, mobile phones, and computers can all exhibit the power of documented knowledge.

Furthermore, according to Ilo (2012), computers and mobile phones are the most often used devices for storage. For example, since they both have internet capabilities, PCs and mobile phones can send saved information as attachments in emails. According to this study, video and audio cassettes can be used as appropriate storage media for information as well as being converted into YouTube files and uploaded to the site for public access. For future generations to conveniently access traditional indigenous knowledge, it is necessary to store it using cutting-edge technical ways.

Making and sharing user-generated content is made possible by social media technology for both individuals and groups (Kietzmann, Hermkens, McCarthy & Silvestre, 2011). To produce, access, and exchange knowledge or skills within social and geographical networks, use social media like Twitter, Facebook, YouTube, and

Google Docs. Most social media does not require specialist knowledge or training; but some social media technologies do require the ability to read and write, making them only available to literate people and hence restricted to urban and educated rural communities.

Videos can be uploaded, shared, and viewed on YouTube. Due of its multimedia foundation, YouTube may be used by both literate and illiterate individuals. Local communities can watch recorded movies of traditional indigenous knowledge practices in a library setting, including music, dance, and agricultural methods. The popular YouTube community betumi serves as an illustration. It is a place "to discover, chronicle, and share information on the vast and diverse culinary heritage of Africa". Founded by Fran osseo-asare, betumi has been bringing together academics, professionals, and anyone who are passionate about African food and food history.

Facebook enables users to share interests, interact with others, publish videos, and join groups that share those interests. Social media and mobile technologies have transformed how individuals earn a living and go about their daily lives, influencing everyone from Arab Spring protestors to young people living in east African slums, ghettos, and streets. Users of Google Docs can import existing documents, spreadsheets, forms, and presentations or create new ones using the program's built-in editor. It may also be shared, opened, and modified by numerous people at once. It is a collaborative tool for editing among users and nonusers in real time.

In east African villages that might not have access to well-known but pricey word processing programs like Microsoft office, Google Docs lowers barriers to collaboration and is a great help. Urban areas and students both like the Google Docs software. Engineers at Google designed Google Baraza in 2010 to assist users in Africa in enhancing and forming the content about Africa. By posing inquiries and providing responses that may be of local or regional interest, Baraza, which is Swahili for "task force" or "council," enables individuals in nations around Africa to exchange expertise.

A 140-character text message (or "tweet") can be sent to a follower on Twitter, a real-time information network, by an individual. Businesses and farming communities

can use Twitter to advertise their goods or commodities for sale, check prices, and communicate with clients and suppliers in addition to interacting with families and friends.

Individuals can use social media technologies to interact with people who share their interests, circumstances, and experiences when they have access to an Internet-enabled cell phone. Cell phones are widely used in developing nations because they give their users mobility, autonomy, and flexibility (Castells, Fernandez-Ardevol, Qiu, & Sey 2007). Sub-Saharan Africa now has far more people who have access to cell phones than it had ten years ago. For instance, 97% of Tanzanians have access to a cell phone, which has a significant effect on people's life and means of subsistence (Hancock, 2005). Mobile devices can record knowledge as it is created. Even the most basic cell phones offer a way to call someone and report on knowledge that is being created on the spot. Users using smartphones with cameras can take pictures, which gives knowledge a visual component.

The experience of sharing knowledge is enhanced by having audio and video capabilities. Local communities can obtain pertinent local material by having a cell phone with Internet access. To cater to these new customers, local business owners have started to create platforms and content. Trained Mashavu operators utilize cell phones to collect data on patient health. They then pass the data to a nurse, who answers with medical advice within 20 minutes. Mashavu is a platform for health care, education, and networking that makes use of the social capital of the Mashavu kiosk operators to increase access to pre-primary healthcare.

The availability of older media (CDs, films, audio, and video cassettes), which are typically kept in African libraries, schools, and other information centers, is another aspect of information exchange that could be beneficial for economic development and that would facilitate the use of social media. Even though these media are out-of-date, they nevertheless contain valuable information that might be made available to huge audiences by being converted to social media and other communication platforms.

2.14. Public libraries can be used in preserving traditional indigenous knowledge

The public library, which produces every type of information that is now available and promptly on the supply of services to its customers, is the local hub of information, according to the International Federation of Library Association (IFLA, 1994). The IFLA (1994) adds that its services are offered under the principle of equitable access for everyone, regardless of age, gender, language, religion, or social status. Through resources, expertise in collection, capturing, storing, and retrieval, public libraries can work with local people to help them preserve their traditional indigenous knowledge (Anyira et al., 2010). To preserve traditional indigenous knowledge, it is crucial for public libraries to play a part. The inclusiveness of public libraries, according to Plockey (2014), enables them to build connections between people at the local level and, consequently, the levels of knowledge found around the world.

Libraries can help with the following, according to IFLA (1994), the collection, preservation, and dissemination of traditional indigenous knowledge; by educating both non-indigenous and indigenous people about the value, contribution, and importance of traditional indigenous knowledge; and by fostering awareness of the need to protect traditional indigenous knowledge from exploitation. The standard of patent laws has been claimed to be insufficient to conserve traditional indigenous knowledge, according to Abbott (2014), who also points out that the existing intellectual property regimes have not been designed to consider such information. Additional issues regarding patents are highlighted by Abbott (2014). Traditional indigenous knowledge owners may find it tough to consider that or that indefinite protection should be offered because patents are known to have a limited lifespan (Abbott, 2014).

According to some estimates, traditional indigenous knowledge has a significant role in how well African nations run daily, whether it be in the areas of agriculture, food security, health, sustainable development, or decision-making. According to Dlamini (2016), not all countries support the idea of protecting traditional indigenous knowledge, particularly developing countries because they are serious thieves of this knowledge. At the same time, it is not widely accepted that traditional indigenous knowledge should be protected through intellectual property. Most rural residents

who live in dispersed settlements are not served by most library service locations because they are often found in urban areas, claim Mchombu & Cadbury (2011). Even if library services are close by, these obstacles make it difficult for rural inhabitants to use them. Many libraries in Africa lack the resources necessary to document, preserve, and disseminate traditional indigenous knowledge due to inadequate infrastructure and lack of running funds.

In addition, libraries and information centers in east Africa frequently lack the funding necessary to sustain digital assets, which prevents them from having a significant impact on the digital environment. Kitengesa Community Library in Uganda, for instance, is sustained only by donations and does not get any financing from the government (Dent & Yannotta, 2005). In Chisita (2011), Okore et al. pointed out that while developing nations have a lot of traditional indigenous knowledge, there isn't a culture that encourages free exchange of ideas amongst neighbors.

The author suggested that libraries establish a setting where local groups can get together and discuss issues relating to farming, health care, ecosystems, and interactions between farmers. Contrary to wealthy countries with robust library systems, libraries in Africa operate in isolation and struggle to survive because of insufficient funding from governments that do not value locally generated knowledge. East African libraries now have the chance, in collaboration with local communities, to document, disseminate, and increase awareness of traditional indigenous knowledge thanks to the development of social media and mobile technology.

People who can afford to buy computers, cell phones, or have other ways to access the Internet will be the only ones who use social media and mobile technology, though. Therefore, libraries might serve as stewards and moderators of the traditional indigenous knowledge database, train locals to gather and record oral and visual materials based on community needs, and post information to social media platforms that could be accessed by a wider audience.

Setting up outreach terminals or kiosks in public spaces like stores, marketplaces, schools, and churches is another option for the main library in a region to consider. By doing this, locals will have access to the databases that house traditional

indigenous knowledge (UNESCO, 1997). The social and gender inequality that is a barrier in most rural regions might be eliminated by these technologies as well (Meyer, 2009). Libraries and other informational institutions could upload audio feeds or films of conventional indigenous knowledge to the social media platforms and communication tools accessible in a certain community. Most people in rural areas, for instance, have radios, therefore a radio program in the local language can incorporate recorded or live material about traditional indigenous knowledge methods. It will demonstrate the importance of knowledge created locally and increase social capital in the community to have community members who are guardians of traditional indigenous knowledge practices *ndayo* give such information to their neighbors.

The African Farm Radio Research Effort, which was established in 2007, works with more than 400 radio stations in 38 African nations to address the needs of regional small-scale farmers and their families in rural areas. This initiative was founded in order to combat poverty and food insecurity. The initiative collaborates with partner radio stations to create and broadcast unique radio campaigns and programs that are intended to tackle development issues, including soil erosion or banana bacterial wilt.

The digital green initiative in India has been successful in reaching small and marginal farmers there with tailored agricultural information using a digital video database created by farmers and professionals. Web 2.0 technology is used in many African preservation projects. The Durban Ulwazi programme is a project of the eThekweni municipal library that aims to preserve the local histories and customs of communities in the greater Durban area of South Africa. It is based on a paradigm where online native knowledge resources are provided as a crucial component of neighborhood public libraries and information services.

The Durban Ulwazi initiative used to gather, share, and synthesize traditional indigenous knowledge in an online digital library in the form of a website that is accessible to communities through the web and mobile technology. The website enables for change and is accessible to many users. The program is the country of South Africa's first online repository for indigenous knowledge. The database's

intended purpose is to gather and disseminate traditional indigenous information among Durban communities, which in turn preserves and makes it possible for indigenous knowledge to be used in the future.

The curriculum includes many different types of indigenous knowledge, including isiZulu and English translations of traditional holidays, costumes, Zulu proverbs, folktales, spiritual herbs, and agricultural practices. The Durban Ulwazi program works as a vital component of the neighborhood public library network, which offers a framework for a digital library of traditional indigenous knowledge. The content is created and owned by the communities themselves, and the libraries act as moderators and custodians of knowledge. The gathering of information is the responsibility of the hired community fieldworkers (Greyling & McNully, 2012).

Between wealthy and underdeveloped countries, there are large disparities in internet availability. Collaborations between libraries, NGOs, and development agencies that provide access to both modern technologies like social media and the Internet and more antiquated ones like fax, telephone, and video could be a financially viable method for recording, preserving, and sharing traditional indigenous knowledge resources in rural African communities. A system like this would make it less expensive for libraries to use the tele-centers run by non-profit organizations to disseminate digitized traditional indigenous knowledge to communities and larger audiences.

Nyumba (2006), emphasizes the accomplishments of tele-centers in east Africa (Uganda, Kenya, and Tanzania) that give rural and peri-urban communities access to information and communication technologies with the help of international organizations like UNESCO, the international development research center, and the international communication union. In the long run, however, such tele-centers would need to be self-sustaining through the provision of beneficial information resources for which local inhabitants are both willing and able to pay. Many developing nations, particularly those in Africa, now have national tele-center networks.

Southern African Tele-Center Network is a non-profit organization that offers national tele-centers in Southern Africa possibilities for networking, information sharing, and

regional knowledge sharing. Libraries have a track record of advocating for users' and authors' rights, resolving copyright disputes in a library setting, and conversing with local communities about issues involving private or public rights. A library setting can be used to discuss the copyright and intellectual property rights problems covered under the United Nations Declaration on the Rights of Indigenous Peoples (United Nations Permanent Forum on Indigenous Issues, 2007).

Particularly in rural areas, the library environment offers a neutral space and can help to eliminate socioeconomic and gender segregation. According to Lor (2004) Libraries may aid in the gathering and storing of knowledge, organize it for usage, and foster an appreciation of it that includes respect for the communities that produced it. The library's outreach program aligns with the WSIS Action Plans, which emphasize capacity building, access for all, and the creation of local material in the local language (WSIS, 2003).

Libraries are responsible for more than just the preservation and protection of knowledge; as part of their outreach initiatives, they also have a duty to disseminate accurate information about cultural practices, including both those that are deemed positive and those that may have unfavorable effects on both individuals and the environments in which they live. The engagement of libraries in cultural events, social gatherings, exhibitions, craft workshops, fairs, and other activities that support the successful documenting and preservation of indigenous knowledge is another way that libraries may actively engage with and mobilize communities.

Through collaboration with rural communities, national governments, and social entrepreneurs, development organizations, businesses, NGOs, and informational institutions, including libraries and schools, are now better positioned to develop, manage, and preserve knowledge and skills that are specific to communities in east Africa. This is thanks to the introduction and growth of social media technologies. Librarians and information organizations need initial and ongoing professional training about the significance of traditional indigenous knowledge and how to document indigenous knowledge using social media and antiquated technologies if they are to assist communities in creating, gaining access to, and sharing knowledge.

The study is about the preservation methods of traditional indigenous knowledge practices by *Vhavenda* people. The extinction of traditional indigenous knowledge practices put a critical threat on the life of *Vhavenda* people. Traditional indigenous knowledge, like languages are of interest in the field of education, literature, reading, publishing, book development and promotion. Western languages are dangerously dominate African indigenous languages. The dominance of colonial languages (English, French and Portuguese) also inhibits the preservation, development, and promotion of African indigenous languages (Bahta & Mutula, 2002).

The survival, revitalization, development, and promotion of indigenous languages are the main concerns of linguists and language policy. Libraries must play a significant part in the development, preservation, and promotion of indigenous languages. Indigenous languages must be incorporated into various library policies, as well as the introduction of reading culture. According to Higgs (2005b), Libraries must play an important role in planning and conducting workshops, classes, conferences, and other events aimed at educating motivated prospective writers.

In a similar vein, libraries need to spearhead a public relations effort to spread the word about their important resources. Libraries must also collaborate with authors and academics to gather and organize data that will be helpful to the next generation. Libraries may also act as a powerful instrument to persuade and motivate populations to read books and other materials that are written in their native languages. As a result, even the authors will be encouraged and supported to produce more works in their native tongues.

A native language reading program is offered by the City of Johannesburg Library and Information Service with the intention of "growing the seeds of mother-tongue languages" in young children (Stanford, 2010). The city's African Literary Development Program, which "aims to popularize African literature and encourage authors to write in all official languages," includes a program specifically designed to foster reading in traditional indigenous languages for children aged five to nine (Naidoo, 2009).

Like Stanford (2010), and Naidoo (2009), these authors advocate for young children to read in their mother tongues because doing so helps them read comprehension-

based texts. Understanding what you're reading can help readers stay interested and authors stay motivated. In schools, there is a program known as "drop all and read," which requires each school to designate one hour each week during which time everyone in the building must stop what they are doing and begin reading. This program mandates that all parties involved, including students, teachers, the school administration, and support staff, participate and adhere to it without fail. The school community must be encouraged to read because of this program's development and promotion.

Additionally, Spelling B, a competition the school holds to promote reading in your native language and your first foreign language, is another program that can help you strengthen language reading skills. By contributing a few books that kids may use to prepare for and run these tournaments, libraries can support and enhance these programs while also encouraging schools. Children's programs on local radio stations require parents to help by encouraging young children to join programs like Takalani sesame on the SABC and "Denzhe" on Phalaphala FM allow young children to listen to various stories while also being permitted to react and share things they have learned. To encourage young children's mother tongue reading programs, libraries, communities, and social media must work together.

The programs mentioned above are very significant since they are delivered in the learner's native tongue, and they pique their interest in reading because they enable them to read with comprehension. The development and promotion of traditional indigenous languages requires the use of online, audio, and visual resources. They also show that archives have on the whole, taken enough care to preserve local knowledge while taking into account the local community (WIPO, 2010). "It is crucial that librarians and information professionals take into account the provision of tools and know-how in terms of gathering, organizing, storing, and retrieving indigenous knowledge" (Stevens, 2008: 29). Several international multilateral agreements, including Agenda 21 and others, have benefited from the efforts of indigenous knowledge activists and groups.

"Agenda 21 of the Convention on Biological Diversity (CBD) recognized that international accords, national laws and policies were key frameworks and tools that libraries should be equipped with in order to deliver on recording of indigenous

knowledge," according to Sithole (2007: 118). The process of documenting "may be arduous, expensive, time demanding, as well as unsatisfactory at times", according to Sithole (2007: 118). However, because the world needs a variety of knowledge systems and species, it is a significant process in the safeguarding of local information.

In partnership with other industries, most South African universities have acknowledged four-year bachelor's degrees in indigenous knowledge systems. Learning how to respect and comprehend the reclamation of traditional indigenous knowledge systems in Africa is a key component of the degree program). According to the magazine, *Simply Green* (2010), states that, "the bachelors of Indigenous Knowledge Systems is a degree that streamlines all areas of indigenous knowledge and teaches them as a condensed curriculum."

In a similar spirit, "it enables students to study indigenous knowledge as local modes of knowing and innovating and to specialize in particular indigenous knowledge fields like health, agriculture, arts and culture (including languages), science and technology, and their administration" (*Simply Green*, 2010). Libraries, according to Okore (2009), "have achieved progress in the preservation of local culture in paper and digital format and have fostered that the interchange of information". Indigenous knowledge is often recognized as an important source of evolving material in many archives.

The library and information professional, according to Nakata and Langton (2005), "has a lot to learn if they are to address the information needs of indigenous people and appropriately maintain indigenous knowledge". According to Ngulube and Stilwell (2010), "libraries have not been particularly active in documenting indigenous knowledge". According to Yang, Schneller and Roche (2015), "this may call for libraries to step beyond of their comfort zone, as libraries are designed to stimulate lifelong learning, advance knowledge, and enhance our communities". To maintain the cultural identity of the community, libraries should conserve and record traditional indigenous knowledge.

In Sithole's words (2007: 119), the library has "emancipated itself from the conventional resources of the written and printed word to integrate new communication mediums and digital technology". He points out that, for libraries to

contribute meaningfully to the preservation and transmission of indigenous knowledge, their function will need to be clearly clarified. The library would need to leverage a range of channels, including as websites and open access platforms, to collect indigenous knowledge locally and disseminate it globally.

A global audience could access the traditional indigenous knowledge by uploading it to these channels. By fostering an environment that allows for in-person forums and networking events to discuss traditional indigenous knowledge, libraries can increase access to it. Anyira, et al (2010), as well as Okore, Ekere and Ekere (2009), recommend having lectures given by priests, traditional healers, and other figures recorded in audio or video format.

Although libraries haven't historically concentrated on these subjects, according to Stevens (2008), they may help indigenous communities maintain and conserve their traditional knowledge by offering "resources and experience in collection, organization, storage, and retrieval". Because they interact frequently with the public, particularly children and young adults, public libraries are examples of this. Charyulu (n.d.) argues that the implicit character of traditional indigenous knowledge, which is often shared through personal dialogue between master and apprentice, neighbors, parents, and children, etc., makes capturing and documenting it a difficult task. Traditional indigenous knowledge cannot be recorded using a single method. Each field study can benefit from a different combination and modification of the methodologies. To successfully record and utilize traditional indigenous knowledge, library professionals must work with relevant topic experts. The sources and techniques that can be used to document traditional indigenous knowledge are briefly described in this section.

The engine that propels the natural processes by which members gain information, skills, and attitudes suited to their local life is the library, according to Chisita (2011), which holds that libraries in higher and tertiary education have a crucial role to play. In a similar vein, Mbeki stated in his inaugural address to the Association of African Universities conference in 2005 that "higher education has an important role to play in the economic, social, cultural, and political renaissance of our continent and in the drive for the development of indigenous knowledge systems (IKS)".

To the repackaging of indigenous knowledge through documentation, Tsiko (2004), offers an alternative. This, according to the author, is crucial at a time when assimilation and cultural genocide are taking place because of high culture's marginalization of traditional knowledge. It is essential to record this knowledge since it has applications in forestry, agriculture, health, and sustainable development while giving due regard to intellectual property rights. For communities to be able to record their experiences, market them, and share them with others, libraries need to be proactive and support community publishing.

Programs to repackage traditional knowledge will also aid in integrating Western and traditional indigenous knowledge to produce information to address environmental concerns related to land management. In collaboration with communities and other stakeholders, community libraries can promote research, recording, and documentation of hereditary knowledge systems as well as their use to demonstrate how these can be used to manage natural and cultural elements. For instance, public libraries' use of storytelling sessions enables them to realize the tremendous potential embodied in indigenous knowledge systems (Chisita, 2011).

According to Sithole (2006), African libraries and information centers confront a variety of difficulties when attempting to archive traditional indigenous knowledge, including a lack of national and international legal frameworks to aid in their efforts. Traditional indigenous knowledge research and recording activities will fail to stand the test of time without adequate financial support. As with other knowledge systems, according to Domfeh (2007), indigenous knowledge systems need special funding. Additionally, it is acknowledged that effective finance methods greatly enhance the policy objectives related to indigenous knowledge as well as the outcomes of indigenous knowledge.

The documenting of indigenous knowledge is difficult in many African countries due to a lack of resources, human capacity, and technology (Sithole, 2006). According to Nakata and Langton (2005: 32), Mr. John Ah Kit, the Northern Territory's Minister for Local Government, said in a declaration to the legislature in August 2004 that "one of the goals of libraries is to maintain our indigenous culture and support community development."

The development of information literacy and fundamental literacy skills is aided by expanding opportunities for libraries in distant places, which is true, and this is a crucial element of the solution. African libraries, according to Were (2015), are "gold mines for indigenous knowledge and research". Indigenous knowledge is being managed in part by public libraries all around the world, including those in Australia, India, South Africa, and Zimbabwe. In response to the argument made by Greyling and Zulu (2010) that "a library with content of local relevance will encourage communities to make use of library services," Durban public libraries have launched an indigenous digital library project and are using crowdsourcing to gather local indigenous knowledge.

In Zimbabwe, the collecting and distribution of indigenous knowledge is greatly aided by libraries and other associated institutions. In Zimbabwe, there is a well-developed public library system with higher concentrations in urban areas. For instance, the capital city itself has at least 16-18 public libraries (Chisita, 2011). Social software is being used by libraries, and Web 2.0 is being used to create a community web portal that preserves indigenous knowledge.

The portal includes an embedded wiki that acts as a memory database, enabling group writing and content sharing. By providing long-lasting digital library services with a focus on the local community, this project intends to help public libraries in Africa join the global information society (Greyling & Zulu, 2010). Libraries and archives, as repository of indigenous and other cultural assets, provide essential preservation, educational, intellectual, and access functions for the benefit of the entire society, according to Wendland (2007). Isah, Bashorun and Omopupa (2012), continue along a similar line by stating that historically, "library and archives are custodians of information and cultural legacy; they hold drawings, paintings, and other documentation objects, including manuscripts, documents, books, audiovisual items, etc". Some libraries "collect indigenous knowledge via use of video cameras and tape recorders," (Bashorun and Omopupa, 2012). They conduct interviews with elders on various facets of their history, including their origins, lifestyles, and even riddles and traditional games, and they record the responses.

Kanye, Kasane, Molalatau, and Palapye are the libraries that have so far made good attempts to manage traditional indigenous information. Elders from the community

are invited to the Kanye Public Library, where they are interviewed, and information is recorded to be shared with the rest of the community at Kgotla. The Kasane public library has started a project to investigate the history of the local population as well as the village's development into a popular tourist destination. Then, this data is entered into a computer and recorded on CDs so that it may be distributed to resorts and hotels where travellers can access it.

The Kasane public library expands its offerings beyond what is typically offered by transforming into a business center to support and encourage a young project. In this project, librarians connect young people with businesses and advocate on their behalf through Citizen Entrepreneurial Development Agency (CEDA) to empower them and help them become self-sufficient. The value of this initiative has been enormous. Librarians work hard and put a greater emphasis on promoting and helping the younger generation by connecting them with various companies and other business sectors to find jobs.

Some members of the younger generation can launch their small companies as entrepreneurs thanks to the support of the public library. Another library in Botswana, Molalatau, has gone above and beyond the call of duty to record and preserve the history of the Babirwa, a particularly distinct and uncommon group of Batswana. For allowing other Batswana groups to understand this ethnic group, this library has undertaken a project that has seen the creation of a Sebirwa dictionary. Information communication technologies are used by librarians to store this data and give users unlimited access to it all day long.

The Batswana can now use their library's digital version of its dictionary. As was already mentioned, the public library in Palapye works closely with indigenous people. To better understand the indigenous people and provide them with better library services, librarians work in partnership with them under the "Old Palapye Ruin" to collect, preserve, and disseminate information on the Palapye ethnicity. "Indigenous knowledge is captured utilizing the Botswana Television cameras and sound recorders to be uploaded on computers, to which the library customers may have access at a later time," according to the Palapye Public Library.

This has proven to be a helpful exercise because it promotes cooperation between communities and media outlets as well as other areas outside of the library. To

gather information and ensure that the public library's services are expanded to include even the common man in the community, it is customary to form a library committee made up of representatives from various community sectors. These stakeholders may include the media, museums, the Botswana Tourism Authority, the chief of the village, village elders, etc.

Due to their ability to make recorded material available to the community, this library is doing a fantastic job. For instance, in Kanye, the information is made available to the community through statements made by the Chief at Kgotla meetings and outreach actions by the librarian, who leaves the library area to let people know this information is available. A soft copy of these documents is also deposited by the library with the national museum, national archives, and records management unit so that the public can access indigenous knowledge (Interview with Respondent W, 2016).

Using computers at the Kasane library, librarians upload their collected information, which is then preserved on CDs and distributed to lodges and hotels where travelers can access it. Through the Kasane library blog at kasanelibrary.blog.spot.com, users can access the packaged information. (2016 interview with Respondent X) The librarian at Molalatau Public Library uploaded this important data with the help of the working committee of the library onto the library computer made available by the Sesigo project so that the public could easily access it (Interview with Respondent Y, 2016).

Libraries and higher education institutions should go above and beyond the typical practice of giving users information and instead start supporting, encouraging, and empowering the younger generation to create as many projects as they can. Younger generations should start developing projects that will aid in the preservation and documentation of traditional indigenous knowledge with the help of libraries and higher educational institutions. Projects like "community gathering" (*nga Tshivenda ndi tshivhidzo*), "awareness campaign," and "interviewing indigenous knowledge holders to divulge their indigenous knowledge so that the information can be conserved and documented" are examples of such initiatives.

Libraries need to step outside of their comfort zone to provide users with standard information and engage the community to empower people to volunteer to gather

and provide native knowledge that can be maintained and conserved in libraries. The community's image of libraries should change so that people see them as a means of preserving the richness of knowledge they have for next generations. Any business person cannot match the value and strength of a person who is knowledgeable. Now more than ever, indigenous knowledge holders and guardians of knowledge are crucial.

The preservation and documentation of indigenous knowledge systems has benefited greatly from libraries. By ensuring that indigenous knowledge systems are reached, recovered, and protected, libraries played a significant role. To preserve and communicate indigenous communities' history, customs, culture, and languages, libraries are essential to provide them with the means to do so. Libraries can help with recording using technological tools like video recording and other tools.

Through the provision of resources and skills in collection, organization, storage, and retrieval, libraries and information professionals can play a significant role in supporting indigenous knowledge bearers with the management and preservation of indigenous knowledge. Information professionals should collaborate with indigenous knowledge holders to create original solutions that address regional needs because indigenous knowledge processes diverge significantly from those of the West. Libraries have provided examples of many approaches and instruments that can be used to manage indigenous knowledge to consider technology constraints, holistic belief systems, oral traditions, and security and access issues.

Libraries and information specialists can play a significant role in providing resources and expertise in the collecting, organization, storage, and retrieval of indigenous knowledge practices. The community can utilize and access collections because libraries and information specialists have made sure of it. Additionally, indigenous groups that establish digital libraries may reap financial rewards through the provision of training and employment opportunities as well as potential information exchange for commercial usage (Sullivan, 2002). Some groups have felt the need to record their knowledge to claim ownership of it and safeguard it from improper commercial usage.

The biggest danger in this regard has come from pharmaceutical firms, some of which have tried to patent plants that have been used by native people for a very

long time. Some communities have developed registers of earlier use out of a fear that they will lose ownership and rights to their own information. According to Tobin (2004, 14), "there is a misconception in some indigenous communities that recording knowledge in registers and databases is a means of asserting rights of ownership over the knowledge. These registers have little, if any, force in law to protect rights over the information they hold, and registration may result in placing the information in the public domain and is deemed to amount to a renunciation of rights over the relevant knowledge".

2.15. Challenges in traditional indigenous knowledge practices

Sithole (2009), states that "indigenous knowledge is subject to change" since it is "primarily kept in people's minds and passed down through generations by word of mouth rather than in recorded form". These elements, such as rural-to-urban movement brought on by development processes and changes in population structure brought on by famine, diseases, upheaval, or war, all contribute to the loss of traditional indigenous knowledge. According to Nyumba (as quoted in Mapara, 2009:54), "indigenous knowledge is under threat from modern technology because even in remote areas the powers that push global or just non-local content such as radio and television broadcasting and advertising, among others, are much stronger than those pulling local content."

How to embrace the nutritious elements of old indigenous knowledge value systems while also absorbing and accommodating new modern ways of living is the largest problem for most communities. Many fundamental presumptions are being put to the test by the Fourth Industrial Revolution, which could increase the conflicts already present in our society over maintaining their core values. Higher levels of social unrest are a result of empirical concerns that there is more inequality in the society.

The fact that the world of technology is leading the charge in providing entertainment for our kids also contributes to the younger generation's current fascination with technology. According to Sillitoe (1998: 247), "indigenous knowledge is fluid and continually changing, reflecting, and negotiating between individuals and their environments". Traditional knowledge, he claims, is rigid, unchangeable, and difficult to preserve. He goes on to say that "observations, abstractions, and empirical

measurements typically lead Western knowledge for testing hypotheses and doing research" (Sillitoe, 1998: 247).

According to Thrupp (1989: 25), "the lack of respect for other knowledge traditions displayed by many Western scientists and supported by the notions that technological superiority implies remedies to all issues, is a substantial hindrance to advancement". The failure of socioeconomic progress could result from ignoring other people's knowledge. For development, it is essential to collect, accurately document, and merge local data with other data. Elders' lack of understanding of the importance of information allocation in preserving indigenous knowledge practices is one of the constraints that may be encountered in the preservation of traditional indigenous knowledge practices. The upshot is that some senior citizens are reluctant to disclose their personal information to the public.

They believe that what they know is "holy" knowledge that only a select few people may access. Indigenous traditional knowledge techniques are seen as antiquated and useless to sustain and grow when the public is unaware of their significance. Elderly people who practice traditional indigenous knowledge practice *ndayo*, should be able to appreciate the value of sharing their knowledge with researchers and librarians so that it can be recorded and maintained because of this study. Since the knowledge is still held by the guardians of knowledge and has not been recorded or kept anywhere, there is not much literature about the *ndayo* preservation techniques used by the *Vhavenda* people.

The world intellectual property organization contends, according to WIPO (2010), that it is important to safeguard indigenous traditional knowledge from being used by outside parties for commercial gain. The fragility of traditional indigenous knowledge practices is exploitable by nature and is still being done so by multinational and international pharma firms, according to Hammersmith (2007). By saying that the plants used to make prescription medications in the United States of America are sourced from forty (40) species, fifty percent of which are tropic-adapted, Mugabe (1998), concurs with Hammersmith's worries. It seems that the main challenge since the term's conception has been the absence of a standardized method for gathering and recording traditional indigenous knowledge, as evidenced by publications by Das Gupta (2010) and others. Das Gupta contends that "institutions like the World

Bank aim to recognize the relevance of indigenous knowledge by making meager advances in this direction” (2010: 167).

Similarly, Gupta (2010), contends that "indigenous knowledge is considered as inconsequential and not provided the credit it deserves for its role in the formation of society. He notes that most World Bank-funded programs transgress the idea of prior informed consent (PIC). Gupta offers the example of a surgeon who won't conduct an operation without prior consent as an illustration of how PIC has been used in the field of medicine. In social science, this has not yet been standardized. Furthermore, according to Gupta (2010: 168), "organizations like the World Bank participating with indigenous knowledge programs do not actually respect local knowledge and rarely incorporate local knowledge specialists as consultants in building their projects".

Further supporting this claim is Gupta's (2010), claim that organizations that have been at the forefront of documenting traditional indigenous knowledge, such the World Bank, frequently do not follow the proper "ethical and professional practices". Even though these projects use indigenous knowledge and have an impact on their lives, indigenous people have not been contacted to help plan or implement them (Gupta, 2010). In a similar vein, Gupta (2010) notes that while influential international organizations like the World Bank acknowledge the value of indigenous knowledge in solving local issues, not much is being done by these organizations to create ethical working practices and standards for dealing with indigenous communities or to promote collaboration between indigenous knowledge and Western knowledge systems.

Even while the value and therapeutic capabilities of the plants have been recognized through use by local people for many years, this knowledge - of herbs, for instance - must be tested in Western laboratories before it is accepted by global societies (Gupta, 2010). How this priceless information might be recorded, documented, and kept is suggested by Gupta (2010), and Martin and Mirraboopa (2003). The significance of PIC is also mentioned by these authors when discussing how to win over the trust of indigenous groups and persuade them to share their traditional knowledge practices with researchers.

“Where it is considered vital to share indigenous knowledge with outsiders, international languages should be used” (Chisenga 2002:18). In the sense that the

specificity that is the essence of traditional indigenous knowledge would be destroyed if it were translated into other languages, this comment raises problems because the message would essentially be lost in the process. There are other native terms as well that simply haven't been translated into English. These are explanations for why traditional indigenous knowledge is so difficult to record and collect, and why it is likely to persist largely as tacit knowledge. According to Nkondo (2012), the Western evaluation of traditional African indigenous knowledge as mere repetition of acts without any theory to explain them reflects the cultural and intellectual arrogance of the West.

“All knowledge is local, but through invasion and colonialism it becomes universal,” argues Nkondo (2012). As Raymond (2011) points out, African children today are either kept in their family environment or deprived of "modern" aspects of education, or they are forced to attend school full time and thus deprived "modern" aspects of education. A “traditional” education specific to his continent. While Western formal education encourages young people to believe that they have no future in rural communities and that traditional indigenous knowledge, including indigenous African languages, is outdated and does not prepare them for the challenges of modern world of science and technology, does it keep this neo-colonial mentality? The arrogance of Eurocentrism has prevented him from understanding the holistic nature of traditional African education, which distinguishes between theory and practice, especially given its community orientation.

One of the most profound impacts of Western education on traditional African societies in Kaya and Seleti has been the dramatic shift in power and control over child, family and community learning towards systems of increasingly centralized authority. This lack of understanding of the holistic nature of traditional African education is at the root of this. According to Msuya (2007) and Kimwaga (2002), children in most traditional African communities learn through a range of activities, such as B. unstructured play or interaction with other children, immersion in nature, and support direct adults in their work and other community tasks. They acquire knowledge through hands-on learning, experimentation, trial and error, independent observation of nature and human behavior, and voluntary sharing of information in the community through stories, songs, rituals and songs.

Due to the inferiority of traditional African education, including the role of family and community, a standardized Western educational program places greater emphasis on an individual's success in a larger consumer culture than on his ability to survive in his own environment and community in formal education. On the other hand, from a Western perspective, centralized control of education is taken for granted and consistent with the ideals of freedom and democracy (Matike 2008). The opportunity to rethink the entrenched hierarchy of knowledge systems is shared by African students and educators. It is a consequence of colonialism and other forms of imperialism that have historically weakened indigenous African knowledge systems. By being part of the formal education system, they will be able to recognize and accept the existence of different forms of knowledge, as opposed to a unified system of reference based on Western ideals and ways of knowing.

The statements of (Odora-Hoppers 2001, 17) that "it is vital that Africa draw upon all the precious indigenous capital of the past and abandon all that is detrimental or disempowering and catastrophic to its development, progress and its durability. in support of this view. An inclusive traditional knowledge system and method should be actively sought and implemented in the education system of South Africa and the continent, rather than building an ecologically coded African society that excludes the knowledge traditions of other peoples. This strategy will not only be rewarding but will ensure that the historic mistakes of favoring one knowledge system over another will never happen again. The 2004 national strategy on indigenous knowledge systems identified the promotion of indigenous knowledge systems in higher education as a crucial element of human capital and the transformational dimension of higher education to meet the development challenges of the country.

Indeed, policy makers, academics, researchers and development organizations are increasingly recognizing the importance for a nation to harness and mobilize the knowledge systems of its citizens for socio-economic development. This is even truer than for a nation's access to physical and financial resources. Building on the existing knowledge of the local population, one can develop an awareness of the conditions in each area and define crucial parameters for support measures. The new African Development Partnership Agency (NEPAD) (2001) recognized the holistic nature of indigenous knowledge systems as a key method for addressing sustainable development challenges in Africa. NEPAD, in its sectoral priorities of

October 2001, section B5 on culture, explicitly states that “the protection and cultivation of indigenous knowledge for sustainable development in Africa will be given special attention”.

The two main objectives are Africa-led globalization. Success requires a critical examination of the applicability of current Western-oriented modes of knowledge and knowledge production and dissemination techniques, which over time have neglected indigenous African modes of knowledge and production methods (McCarthy, 2004). The development of initiatives to integrate indigenous knowledge systems into their research, teaching, learning and community engagement programs has been undertaken by many higher education institutions in South Africa, including the Venda University. As I mentioned earlier, the University of Venda calls on all people, elders and keepers of traditional indigenous knowledge to collaborate with the University to document and preserve knowledge.

According to Ngulube (2002), the predominant information management strategy in sub-Saharan Africa, as in many other parts of the world, is based on the collection and preservation of explicit knowledge, much of which is produced by researchers, laboratories and institutions academics. According to him, such methods leave little room for incorporating traditional indigenous knowledge of local communities into the extraterrestrial knowledge system. There is a risk that the indigenous knowledge these people currently possess will be outdated and lost forever due to the rapid environmental, social, economic and political changes occurring in many places where indigenous peoples are present (Singh, 2006). Traditional knowledge is seen as limited, narrow, dull, primitive, and emotional, while Western science is seen as open, systematic, and objective, relying heavily on a distant center of logic and intelligence (Ellen & Harris, 2000). While indigenous African social theory and interpretation are central to the scientific method, colonial research in Africa has not supported these efforts (Kaya & Seleti, 2013). The marginalization of traditional indigenous knowledge by African scholars, governments, scientists, entrepreneurs and scholars is a significant obstacle to efforts to incorporate it into development efforts. Wane (2005) complains that Western knowledge systems in agriculture and medicine are considered the only scientific systems and that governments miss out on opportunities to profit from the production of pesticides and other products that can be exploited in the natural world by knowledge systems indigenous people.

Many young people do not embrace traditional indigenous ways of learning, according to Wane (2005), because they identify them with deprivation, scarcity and lack of financial wealth.

African nations were colonized during the apartheid era, and this system has also paralyzed the minds of Africans so that we cannot see anything positive in our indigenous knowledge. Consequently, even the younger generation cannot embrace this knowledge as crucial to their lifestyle. This study serves as a turnaround strategy to give traditional indigenous knowledge practices their rightful place as foundational knowledge on an equal footing with other types of knowledge. Traditionalist communities and organizations have often been portrayed as uneducated, backward, and even uncivilized due to their adherence to local knowledge of health and development techniques and ancient belief systems (Kolawole, 2001). Shrestra (2002:107) writes that "the missionaries mocked and shamed Africans for ancient indigenous knowledge practices and ignored much of what is indigenously African as a fetish and required converts to rely instead on medicines brought from Europe".

Ahyi (1997), Such a mentality has made Africa almost entirely dependent on the West, which benefits Western pharmaceutical companies, publishers, scientists and governments. The use of traditional methods of indigenous knowledge for development purposes can be encouraged through education, which plays a vital role in enlightening communities and can be used to this end. "Education in Africa was and still is primarily a journey driven by a sense of inadequacy exogenously created and internalized in Africans and tasked with devaluing or destroying African creativity, agency and value system" (Nyamnjuh, 2004: 168). Brock-Utne (2000) bemoans the continuing dependence on external forces to fund education, posing a problem for long-standing indigenous knowledge systems. Furthermore, according to Ezeanya (2015), "he who pays the piper sets the tone" means that, in priority areas of curriculum and research, Western curriculum and agenda are typically the building blocks rather than indigenous African knowledge. According to Ezeanya (2015), the scientific agenda and education system in Africa pay little attention to traditional medicine. Universities and other educational institutions in Africa continue to imitate the educational model of the West, according to Nyamnjuh (2012). Furthermore, according to Hountondji (2002), "another striking feature of extroversion in Africa is that most academic and research activities are still conducted in the colonial

languages, especially English, French and Portuguese, which facilitates the development of research and theory based on inherent pitfalls conceptual research framework and paradigms".

Further stating that "African colleges have been influenced to try to be what other global institutions are due to the requirement that they must be globally competitive" (Nyamnjoh, 2004). African universities have ignored indigenous knowledge by doing so due to lack of formalization in the field, traditional indigenous knowledge in Africa cannot be properly exploited. In the informal sector and unregulated economy, traditional indigenous knowledge techniques are now being applied, making them vulnerable to abuse (Ocholla & Dlamini, 2007). There is a need for repositories, databases and the creation of finding aids, as traditional indigenous knowledge processes require archiving to be retrieved. Le Roux (2003) mentions that the World Bank has compiled databases on traditional practices of indigenous knowledge and that the study by Ocholla and Onyancha (2006) on models of disclosure of indigenous knowledge was among some of these efforts.

Regrets, however, that obtaining credible materials and records for such databases remains a problem due to the lack of empirical studies on indigenous knowledge (Ocholla & Dlamini, 2007). Traditional methods of Indigenous knowledge can be brought into the realm of reason by documenting Indigenous knowledge and creating laws, regulations and other structures designed to support Indigenous knowledge. Given the increasing loss of natural habitats, traditional community life, cultural diversity and knowledge of medicinal plants, Okello et al. (2010: 1-2) argue that documentation of traditional African plants is a pressing issue. The oral transmission of complementary and alternative medicine to the elderly can be detrimental to their survival because the practice of transmitting traditions from one generation to another is in serious danger of disappearing, there is no written record of this knowledge and the number of elderly people increases Healer fades (Weldegerima, 2009). Sithole (2006) adds that "indigenous knowledge is particularly individualistic, that is, knowledge is passed from parent to child, or it could be ancestors who communicate through dreams, an incomprehensible language for many except the addressee". Therefore, although knowledge is important, it becomes difficult for an individual or an organization like a library to document it adequately. Indigenous knowledge is transmitted orally, based on experience and without writing. It is

acquired through practical application and not taught in an abstract setting, and its parameters are holistic, non-linear and represent a qualitative and intuitive way of thinking (Capp & Jorgensen 1997). The problem is that once traditional indigenous knowledge is used for development initiatives, local communities and the holders of this information lack incentives, Mosimege (2001).

According to Communiqué (1993), the University of Toledo filed a patent in the United States for the use of Endod to manage zebra mussels; however, the royalties do not go to the original “owners” of the plant, the Ethiopian people who selected and cultivated Endod for millennia. Mosimege (2001) points out that with any indigenous knowledge, technologists and practitioners intend to share the profound information that has been accumulated and perfected over a long period of time without deriving any benefit from it. In order to recover and restore indigenous knowledge, according to Dei (2014), “a critique of the Western discursive approach to African development as anti-colonial and anti-racist intellectuality should be pursued”. Capturing, managing and communicating indigenous knowledge is a problem in itself, as it is typically tacit and embedded in the practices and experiences of a particular community.

Traditional indigenous knowledge is supposedly based on the individual, making it difficult to capture and pass it on to others. This is according to Makinde and Shorunk (2013). There are significant copyright and intellectual property barriers in the collection, preservation and making available of traditional indigenous knowledge (Okore, Ekere & Eke, 2009; Anyira, et al, 2010; Adeniyi & Subair, 2013). Concerns over copyright and intellectual property rights have become increasingly complicated and difficult due to the web-based management, storage and sharing of traditional indigenous knowledge. It can be difficult to determine who is the rightful owner of traditional Aboriginal knowledge is. Another obstacle is the lack of funding. According to Okore, Ekere and Eke (2009) and Anyira et al. (2010), librarians struggle to manage indigenous knowledge due to a lack of funding, which stems from a lack of infrastructure and poor training. There is empirical evidence that the management of indigenous knowledge is hampered by librarians' negative attitudes towards it. For example, the management of indigenous knowledge in libraries in the Niger Delta is unproductive because it is not properly managed there (Anyira et al., 2010; Adeniyi & Subair, 2013). It is difficult for librarians to adapt and fund new technology-based

facilities, such as telecentres, which are crucial platforms for capturing, transferring, and making indigenous information accessible (Okore, Ekere & Eke, 2009). One of the main problems is the lack of resources essential for the conservation and transfer of indigenous knowledge (Anyira, et al, 2010). Indigenous traditional knowledge is generally considered technically simple, but it can also be costly, time-consuming, frustrating, and labor-intensive (Anyira, et al, 2010; Makinde & Shorunk, 2013), making it a problem.

A common problem in libraries, especially in African countries, is understaffing, which limits librarians' access to indigenous knowledge because they have many other responsibilities related to providing information services to their clients (Anyira, Onoriode & Nwabueze, 2010). There is an inability to communicate in a common language due to language difficulties among indigenous peoples and librarians. Another significant challenge is the need to preserve indigenous knowledge and communicate it to other community members in languages they can understand (Anyira et al., 2010). Traditional African knowledge is largely ignored by Western scholars and considered unscientific. Because of the concept of the power of knowledge, African and Western knowledge come into conflict. "In a society where people take their cultural knowledge with them, knowledge wars are likely to occur, and history tells us that there have been such wars both within and between different civilizations," asserts Masolo (2010: 17).

Another problem with indigenous knowledge is the lack of laboratory testing, which makes it difficult for science to validate it. Instead, indigenous knowledge is based on years of experience (Kashweka & Akakandelwa, 2008). Because Indigenous Knowledge is a source of status and income for Indigenous Peoples, they are constantly secretive, often suspicious, and afraid to document Indigenous Knowledge outside of their usual verbal exchanges. This knowledge is a syndrome of power and lack of cooperation from local communities is the result. They fear that if they are registered, they will be abused, stolen or even used against them, which prevents them from recovering them and leaves them helpless (Makinde & Shorunk, 2013). Due to the know-power syndrome, it can be difficult for librarians to record the tacit information of indigenous peoples, who are sometimes reluctant to share it with others (Okore, Ekere & Eke, 2009; Anyira et al., 2010; Adeniyi & Subair, 2013; Ebijuwa, 2015). Loss of traditional indigenous knowledge and skills due to amnesia

or death of elders, intentional or accidental destruction of indigenous knowledge, and amnesia in general is another problem (Owiny, Mehta, & Maretzki, 2014). Traditional African knowledge is an asset that the continent has invested in its people through the struggle for liberation and self-survival. It can be seen as the underlying social capital and as an asset that the African continent has invested in its people (Adigbuo, 2017).

For many years, Western-centric, colonial, and post-colonial education, as well as Western religion, science, and technology, have been used to spread misinformation and undermine traditional indigenous knowledge systems. These systems "represent a mass of Africa's so-called scholarly and modern generations have lost touch with the rich values of Africa's indigenous knowledge due to the impact of the continued erosion of indigenous teachings in African curricula and societal practices. The ongoing destruction of indigenous knowledge systems in Africa by other civilizations and their influence through formal Western education was also identified as a threat. However, there is a clear contribution that African traditional indigenous knowledge practices can make to global agendas such as the United Nations 2030 Agenda for Sustainable Development (United Nations, 2015).

How to live sustainably is a topic covered extensively in traditional Indigenous wisdom. However, the practical components of indigenous knowledge that were useful in everyday life have been replaced by abstract information and academic learning methods due to formal education systems. Today, there are serious concerns that much of indigenous knowledge, including their invaluable understanding of how to live sustainably, is being lost (UNESCO, cited in Ugwu & Diovu, 2016, p. 23). This claim was supported by Sifuna (2008), who claimed that "the failure to combine indigenous learning and Western education was partly a deliberate attempt to eliminate African education" (p. 20). A problem facing indigenous knowledge systems (IKS) in Africa, colonialism, was also mentioned by Eyong (2007). Selective omission of non-European achievements, innovations, and technology in academic writings," according to Eyong (2007: 131). To support the theory of non-Africanist scholars, facts on traditional indigenous knowledge practices are frequently twisted.

The intrusion of the Europeans into the contextual development of the traditional indigenous knowledge and practices of Africa, however, was the biggest of these problems. The fact that non-Africans created and contextualized African traditional indigenous knowledge outside of the continent's borders and for Africans presents a huge issue in this situation (Adigbuo, 2017). According to Banda (2008: 71), "African indigenous knowledge systems (AIKS) existed in a vacuum and never even belonged to the community to early missionaries and the colonial overlords. A further claim made by Banda is that indigenous African knowledge systems are viewed as being extremely inflexible, unwritten, archaic, and superstitious. Several times, old indigenous knowledge systems in Africa have been deemed wholly incompatible with modern civilization and development and should be sent to the archives and museums. African indigenous knowledge systems have, in some extreme circumstances, been characterized as frantic and incomprehensible systems of thought that are unorganized, unscientific, and merely myths.

Contrary to Western knowledge, which is constantly being created, it is assumed that indigenous knowledge systems in Africa are always present and waiting to be passed down from one generation to the next, making them archaic and not universal. The third counterargument is that while though indigenous knowledge is thought to be more widely disseminated locally, no one individual, institution, or social group would claim to have complete knowledge of it (Sillitoe, Dixon & Barr, 2005). According to Ocholla and Dlamini (2007: 56), "the fundamental difficulty that is confronted by traditional indigenous knowledge is marginalization, and indigenous knowledge has experienced marginalization over the years". According to Ocholla and Dlamini (2007), "marginalization refers to exclusion - a state of being left out or having inadequate attention to something. Indigenous knowledge is marginalized since it is thought to be outdated and primitive, and as a result, has no value. Traditional indigenous knowledge is ignored because of this attitude, and as a result, Western information is utilised because it is believed to be more sophisticated and more suited for a third-world country.

Like how colonialism paralyzed traditional knowledge in other parts of the world, indigenous knowledge in Africa was viewed as mystical, illogical, and unscientific at

the expense of Western understanding. Because indigenous knowledge holders were oppressed, the colonial age promoted Western knowledge and modernisation while pushing traditional indigenous knowledge aside. Africans were helpless throughout the colonial era, and their traditional indigenous knowledge techniques were seen as primitive, barbaric, and out-of-date. Traditional indigenous knowledge intellectual richness is currently in danger of disappearing. The preservation, documentation, and defense of traditional indigenous knowledge against disappearance threats depend heavily on the results of this study. Similarly, Mosothwane (1997: 727) claimed that "young people do not appreciate indigenous knowledge because some of the difficulties it presents are not actually scientific". There are numerous causes or factors that contribute to marginalization, according to Ocholla (2007).

Furthermore, according to Ocholla (2000: 57), "marginalization has also occurred because families and communities are increasingly disintegrating and globalizing: a trend that may have stemmed from the push-pull of technologies, as well as the over-extensive supply of mass-produced goods, services, and mass-media gadgets, and being content to occupy private spaces where indigenous knowledge once flourished". Since indigenous knowledge is passed down orally from generation to generation, De Guchteneire et al. (2004), warned that it runs the risk of not being recorded and stored in a systematic manner. This notion is backed by the Department of Science and Technology (2004), in the context of South Africa, which highlights the necessity of documenting, safeguarding, and using indigenous knowledge in ways that could be advantageous to its owners and the communities.

The excessive reliance on oral transmission of indigenous knowledge through generations presents another difficulty (Esia-Donkoh & Asare, 2009). Furthermore, Esia-Donkoh and Asare (2009), assert that modernization and the influences of other religions have created external challenges. In the study that the authors did, the respondents made comments about how alien faiths, like Islam and Christianity, tend to minimize the indigenous concepts of gods, ancestors, and totems, as well as their rituals and other practices. As a result, according to Esia-Donkoh and Asare (2009), these have an impact on the spiritual attachment of the local population to the environment.

Furthermore, the issue of indigenous knowledge vanishing is a problem (Msuya, 2007). Additionally, according to Msuya (2007: 1), "indigenous knowledge confronts the threat of extinction, due to the failure to document it, as well as due to difficulties associated with the preservation and conservation of such knowledge. This is mostly caused by the lack of written documentation for most indigenous knowledge practices. Oral and practical methods are used to pass on the information from one generation to the next. Consequently, due to a lack of trustworthy records, it is simple for indigenous knowledge to disappear.

The possibility of indigenous knowledge being lost, according to Msuya (2007), is explained in part by the focus on the direct currency value while ignoring the non-cash. The author makes the case that efforts have been made in the field of research to study and catalog medicinal plants, as such endeavors result in discoveries that the pharmaceutical sector can employ to manufacture medicines (Msuya, 2007). Because of how antiquated they perceive traditional indigenous knowledge to be because of technological advancement, the younger generation undercuts and ignores it.

The fading of traditional indigenous knowledge techniques was also influenced by outside faiths. Because traditional indigenous knowledge practices are viewed by foreign religions as demonic and unholy, they have suppressed indigenous knowledge. They also emphasize that those who adhere to these practices are ungodly and therefore do not deserve to enter God's kingdom and instead must spend eternity in hell. "The discourse of development has gone through numerous phases, from the emphasis on economic growth and growth on equity, through participatory development, to sustainable development" (Black, 1993: 75). While it is widely acknowledged that traditional indigenous knowledge is a crucial instrument for sustainable development, it is still viewed as a neglected development tool. In contrast to traditional knowledge, which is referred to as tacit knowledge since it is difficult to define in terms of formal knowledge, according to Western scientific literature, "Western knowledge has been the dominating knowledge. Western sciences, however, are trained to evaluate development issues and provide answers based on evidence" (Escobar, 1995:14).

According to Escobar (1995: 13), "Western sciences gave answers based on scientific methods during the colonial period, further analyzing difficulties. Therefore, indigenous knowledge and development processes were isolated by colonialists. Furthermore, Escobar (1995: 14) notes that "projects for rural development that are conducted in a country under the sponsorship of the World Bank, enhance the Western knowledge influence."

Rural communities' cultures and groupings differ from urban ones in a variety of ways, most notably in their ways of knowing. Escobar (1995:14) goes on to say that "progress has relied solely on one knowledge system, namely the modern Western knowledge. As a result of the Western knowledge system's supremacy, other knowledge systems have been subjected to oppression, marginalization, and exploitation. In the 1970s, it was discovered that women were excluded from development. These days, the field of women in development has expanded because of this discovery (Escobar, 1995).

Indigenous knowledge systems "may be beneficial considered as complementary to existing formal knowledge, but not as a competition," according to Reij and Toulmin (1996). Even though traditional knowledge is becoming more widely recognized and respected, it might still be tempting to advancement. The top-down approach to development used to be the focus, but this has changed to the grassroots level. Sadly, several African countries appear ashamed to promote anything that is viewed as being non-scientific (Reij & Toulmin, 1996).

Traditional indigenous knowledge serves as a critical foundation for decisions at the community level about matters such as food security, education, the management of natural resources, the health of people, animals, and the environment, among other crucial undertakings. It serves as the poor's principal asset, a crucial component of their social capital, and is essential to their struggle for existence (Gorjestani, 2002). Developing nations must behave as both contributors and consumers of knowledge if a true global knowledge is to be viable.

The process of any local community's development must therefore incorporate indigenous knowledge. Although capital is essential for sustained social and

economic development, the first step in mobilizing such capital is building on the local and fundamental component of the nation's knowledge, which is traditional indigenous knowledge (World Bank, 1998, Gorjestani, 2002). The claim that "any accurate knowledge must be double-directional" is made by Gorjestani in 2002. It is easy to spark animosity when information only travels in one direction – from wealthy economies to impoverished ones. Communities must be helped in their efforts to adapt information to specific local circumstances if knowledge transfer is to be successful. Furthermore, learning more about the needs and conditions of the poor is the best way to impart knowledge to them. To ensure that indigenous knowledge is considered during the planning and implementation phases of a process, it is crucial for developmental activities, especially those that are intended to directly benefit the poor (World Bank, 1998; Gorjestani, 2002).

It will be appropriate to highlight that indigenous knowledge is useful to the generation of wealth because development processes are concerned with wealth creation through the market or economic systems (World Bank, 1998; Gorjestani, 2002). Traditional indigenous knowledge is a priceless asset for development. It can serve as a foundation for sustainable, people-centered development when appropriately incorporated with contemporary knowledge. "Rural people are very knowledgeable about their environment and how it affects their daily activities; they know what kinds of crops to plant, when to sow and weed, which plants are poisonous and which can be used as medicine, how to cure diseases, and how to maintain their environment in a state of equilibrium" (Kothari, 2007)

The value of traditional indigenous knowledge is being more widely recognized nowadays. For instance, the Rio Declaration on Environment and Development, the Convention on Biological Diversity, the International Labor Organization (especially Convention 169), the United Nations Cultural Scientific Organization (UNESCO), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the United Nations Commission on Human Rights (UNCHR), and several documents that come out of various (Kothari, 2007).

"Several countries have created laws, institutions and programs to recognize and promote traditional indigenous knowledge as a result of growing understanding of the importance of this knowledge for sustainable development and continued

concern about its decline. In addition, several international, non-governmental organizations Indigenous and local community organizations (NGOs) have begun to take action to halt the loss of indigenous knowledge (Kothari, 2007), yet many African countries have still not given traditional indigenous knowledge the attention it needs, despite the recognition that has received in recent years. There is still a harmful distortion and trivialization of traditional indigenous knowledge, even as South Africa's post-apartheid agenda to establish a democratic social order recognizes indigenous knowledge systems and technology as an integral and vital part of the process of reconstruction and recovery.

This may be because the apartheid ideology of the nationalist government has neglected it, making it almost difficult for Western science to understand indigenous systems of knowledge and values. Indigenous traditional knowledge needs to be properly archived and documented and made accessible for easy access, but this work is still ongoing (Raza & Du Plessis, 2001; Gbenda, 2010). Omawumi and Oludare (2013) discuss the difficulties Nigeria faces in documenting its indigenous knowledge and affirm the importance of national indigenous knowledge policies. They also noted that the lack of these policies remains a problem for Nigeria. Numerous other elements, such as lack of institutional and professional documentary makers, tacit nature of Indigenous knowledge, low patronage, individualistic nature of Indigenous knowledge and network technology impact the documentation and dissemination of Indigenous knowledge in Nigerian libraries (Okorafor, 2010).

In another study, Lwoga and Ngulube (2008) found that attempts by the poor to use their ideas and skills to improve their agricultural operations are stifled by a lack of a persuasive approach to information management. Indigenous wisdom has been lost to a large extent as it is largely stored in the memory of the elders, whose knowledge is lost as they die of old age. However, despite the greater attention, there is still a small percentage of adoption of external technologies due to weak linkages between farmers and expanding research (Ngendello et al., 2003). In other cases, the difficulty may be to affirm that certain undocumented traditional medicines are effective and at the same time to document without any proof (Magara, 2009). Despite the above difficulties, the value of recording indigenous knowledge for appropriate dissemination cannot be overstated. In Nigeria, for information and

development purposes, it is essential that library staff disseminate local knowledge. Through proper documentation of oral and other indigenous methods that can be obtained from knowledge holders, traditional indigenous knowledge can be repackaged. Priya and Rabindra (2010) state that it is important to promote the use of indigenous traditional knowledge for human purposes through specific activities such as seminars, workshops, debates, conferences and exhibitions that deal of these stories of using aboriginal traditional knowledge. Reflected to highlight the value of disseminating traditional Aboriginal knowledge.

The claim supports the idea that traditional indigenous information is disseminated only after adequate documentation, which can help spread such cultural knowledge beyond borders. Indigenous traditional knowledge requires creators or owners who have the vision and will to produce, modify, or exchange it; it does not just appear. Much of the priceless traditional knowledge may be preserved, documented, enhanced, digitized, and transmitted for use by communities both inside and outside of a given country with the use of new ICT tools and local ICT expertise. This might help the process of repackaging indigenous knowledge to ensure its applicability and relevance in the local context.

In other words, for ICT to be an empowering tool and a disseminator of locally relevant messages and information, they must provide opportunities for local populations to interact and communicate with each other and with the outside world, sharing their ideas, knowledge and culture in their own language. According to Taiwo (2008), the following tools can be used to transmit indigenous knowledge: tape recorders, radio, television, newspapers, telephones, computers, cameras (such as video cameras, camcorders, etc.); ICT via Internet, e-mail, fax, CD-ROM; printed materials/documents (such as brochures, posters); floppy disks; social gatherings in communities. These tools can be used individually or in combination with good results.

In contrast, Issa (2000) argued that there is no established standard for determining the best medium for disseminating information in rural areas. This is because it differs greatly depending on the purpose of the information source and the content of the message in relation to a particular target group. Nigeria has a long history of using interpersonal communication to disseminate information, dating back to the illiterate era before the creation of writing. At that time, civilization used oral tradition

to convey its ancient knowledge and beliefs. Another development is the idea that the exchange of indigenous knowledge is the same as spreading it. Native sharing of knowledge is the ideal outcome of successful transfer and dissemination. The exchange of information from one community to another is the key part of integrating indigenous knowledge into the development process.

Indigenous knowledge exchange basically occurs in six stages: recognition and identification, validation, registration and documentation, archiving, transfer and dissemination (Ajay, 2014). However, Anele (2012) notes that indigenous claims for greater protection of indigenous systems of knowledge and cultural material in Nigeria only superficially conflict with some of the central goals of libraries and other information services, such as freedom of expression, intellectual freedom, dissemination of knowledge, research and learning, access to information and conservation of cultural heritage (Wendland, 2008). There is much that LIS professionals can accomplish in terms of overall Indigenous knowledge management to achieve Indigenous knowledge documentation and dissemination.

According to Mabawonku (2002), information specialists have clear roles as development agents in understanding, locating, collecting, interpreting, sharing and protecting indigenous knowledge. For example, the public library has been a suitable referral partner in Indigenous knowledge systems initiatives due to the stability of its position within society and within the framework of government in which it is established (Greyling & Zulu, 2009). It is well placed to provide free and equitable access to information and knowledge because social services form an important part of it (Hedelund, 2006). As a result, Adam (2007) notes that community libraries in many countries, particularly in Latin America, have shown a strong tendency to preserve local culture in digital and print formats and promote information sharing. According to the International Federation of Library Association (2003a), libraries can help collect, preserve and disseminate indigenous and local traditional knowledge.

Libraries can also help highlight the value, contribution and importance of Indigenous knowledge among non-Indigenous and Indigenous peoples. The term "library staff" refers to those who work in libraries, regardless of rank or cadre. Most library theories and methods are designed to deal with published materials, since librarians

can generally process them more easily than with unrecorded and unpublished knowledge (Lor, 2004). He reiterated the sophisticated theories, processes and methods that librarians use to collect, organize, preserve and make accessible records of information and documents. However, it must be recognized that they are not very good at organizing undocumented knowledge or creating new documents that capture undocumented knowledge. Managing artifacts such as books, movies, computer disks, files, and records is a specialty of librarians. Today, documents could be virtual and stored on one or more servers on the Internet. Although the term “document” refers to all information carriers, including audiovisual and electronic content as well as printed books, magazines and newspapers, librarians always focus on documents that already exist. A full awareness of the responsibilities of librarians in collecting, caring for and disseminating our unique cultural assets is especially important when it comes to supporting library staff in collecting and sharing Indigenous knowledge. According to Ozioko, Igwesi and Eke (2011), librarians need to acquire a range of new technological skills and abilities, such as B. Website development, digitization skills, metadata management and web links to ensure dynamic and effective dissemination of our local information globally.

Access to indigenous knowledge should be simplified to encourage the free exchange of ideas and the widest possible expression of cultural diversity, reflecting languages, beliefs and ways of life very different from those of other cultural groups. The problem of local content development is complicated as it requires the selection, retrieval, repackaging, organization, preservation and dissemination of locally produced content and heritage resources such as folk knowledge, festivals, medical practices conventional, music, crafts, local clothing and artistic creations. . If these regional cultural practices are not carefully nurtured, they risk disappearing altogether. They must therefore be preserved.

In South Africa, there have been numerous initiatives to develop indigenous knowledge systems at the national, provincial, and local levels. Following a debate at a provincial policy workshop for 29 stakeholders conducted in Johannesburg on June 5, 2009, the following recommendations were made, according to a report by the Gauteng Provincial Government of South Africa (2009), on indigenous knowledge systems: Policy regarding indigenous knowledge systems must consider

the dynamics of sociocultural diversity. The promotion of cultural fairness and multiculturalism at the provincial level is required by the policy on indigenous knowledge systems. Indigenous knowledge systems must also consider various religious rituals, initiation rites, and information that has been introduced into South Africa from abroad.

Initiation schools and African Pentecostal churches are only a few examples of the diverse religious practices that should be acknowledged. Older individuals must be recruited to teach and propagate traditions at centers of knowledge that must be revitalized and established. It is important to plan a province-wide calendar of cultural events, including storytelling, traditional music performances, and traditional food fairs. Municipalities are significant participants since it is up to them to execute development and policy initiatives for indigenous knowledge systems. Due to their concern that they may forfeit their rights, practitioners are currently reluctant to offer their expertise and goods.

The transmission and use of some categories of esoteric knowledge are restricted to a small group of people, and as a result, they cannot be made available to the public or used for profit. This fact must be considered when developing policies relating to indigenous knowledge systems. The development of the provincial indigenous knowledge system policy requires input from all stakeholders, including traditional authorities, organizations, and government entities. The importance of family education for young children must be acknowledged for the preservation of indigenous knowledge systems.

It is essential to foster synergies between governments at the various levels given the crucial role that indigenous knowledge systems play in national development. Therefore, it is crucial to make sure that indigenous knowledge system policies adhere to the same philosophical principles regardless of the scale of such projects. In the past, there has been a growth in the availability and transmission of information electronically. Most people in underdeveloped countries still do not have access to essential information, despite this rise. Between emerging and developed nations, within nations, as well as between the rich and the poor, this information gap, often known as the digital divide, has widened over time. The lack of access to resources and services that could enhance their lives is made clear by this

knowledge transmission gap for the less fortunate and underprivileged (Akinde, 2008).

Information exchange between communities can be facilitated by incorporating indigenous knowledge into development procedures. Historically, it has been acknowledged that indigenous knowledge is a crucial component of economic and social development, particularly at the local and rural levels. There are still questions about the best way to promote indigenous knowledge by fusing it with scientific and modern knowledge without undermining the fundamental qualities that define it, even though the importance of indigenous knowledge is now widely acknowledged by various bodies and international organizations.

The exposure of indigenous knowledge to such scientific and technical rigors might be damaging because modern knowledge is predicated on science and technology, giving it the power to unravel and modify the surrounding system (Yokakul, & Zawdie 2011). According to the World Bank (1998), there are six processes involved in exchanging indigenous knowledge that are typically used in developing nations. Indigenous wisdom needs to be acknowledged and named.

Sometimes indigenous knowledge is combined with modern technologies or cultural norms, making it challenging to distinguish between the two. In these cases, it must be recognized by an outsider. The significance, dependability, relevance, and efficacy must all be evaluated in this process. Indigenous wisdom must therefore be respected. Indigenous knowledge is sticky by nature, making documentation and recording the most significant obstacle.

The exchange of tacit information between individuals occurs through communication. While it's important to consider conventional approaches, there are circumstances when modern tools like diagrams, charts, and graphs must be used. To prevent the loss of indigenous knowledge, documentation is another important safeguard. Keeping indigenous knowledge in storage is essential. Text records and digital media like tapes, videos, films, and narrative are both acceptable forms of storage. Moving it from one place to another is part of the transfer of indigenous knowledge. It is thought of as an experiment to explore if it will function in different settings. Indigenous knowledge is promoted globally through development, which is aided by the sharing of indigenous knowledge to larger groups.

It is necessary for people and communities to be involved in making decisions that affect them since development philosophy and practice have shifted in favor of people- and community-centered programs. It also increases their understanding, engagement, and capacity while opening new paths for social change and empowerment. By promoting discussion and debate, different forms of communication and information exchange can promote progress. A community's members can recognize opportunities for sustainable development and solutions that are within their grasp through exchanging indigenous knowledge, which can encourage changes in behaviors and attitudes (FAO, 1999).

For real growth and production, both locally and nationally, indigenous knowledge exchange is essential. Computers, tape recorders, radio, television, newspapers, cameras, such as camcorders and video cameras, ICTs via the Internet, e-mails and other facilities, fax, CD-ROM, and other devices are proposed toolkits for the exchange of indigenous knowledge, according to Akinde (2008). Posters, brochures, and other printed goods and documents, as well as diskettes. Indigenous people are well-versed in living sustainably and frequently participate in social gatherings in their communities.

Formal education systems, however, have replaced indigenous knowledge and learning methods with academic information and abstract knowledge, disrupting the practical everyday life features of indigenous knowledge and learning. There is a serious concern that vital knowledge about how to live sustainably as well as a great deal of indigenous wisdom are currently being lost. Indigenous knowledge must be integrated into the educational system to assist societies and communities benefit from it. If integration is done right, it will motivate educators and students to value local cultures more, as well as their wisdom and morals, and it will provide methods for imparting knowledge and skills that are pertinent to their communities (UNESCO, 2010).

A case of the successful integration of indigenous knowledge with Western education in India has been reported by (Gorjestani, 2002). In India, the World Bank supported the Reclamation of the Sodic Lands project. Farmers in the area founded the Sodic Lands Reclamation Project to boost revenues for families. The initiative was supported by a self-help organization, which is how it is commonly referred to,

and was marketed to boost agricultural activities. A 50% loss in paddy and wheat crops was caused by improper irrigation management of the Sodic soils.

Farmers used gypsum using a blend of traditional and contemporary expertise. The farmers were able to produce many harvests, green manure, rotate their crops, and compost because of the application of gypsum to the soil, which resulted in a large improvement in the soil's fertility. Additionally, they were able to restore land that belonged to 247 000 families, covering about 68 000 hectares (Gorjestani, 2002). Neem extract, rice husk, and green manure were also used by the farmers to suppress brown plant hoppers. After five years, paddy and wheat yields increased by 60%, and so did earnings.

To include these techniques in the curriculum and outreach efforts, the farmers established a neighborhood farmers' school with the help of the World Bank. Currently, over 7 200 households in 65 villages receive training and advice for farming. Not only did the acceptance and absorption of indigenous knowledge led to technical and economic benefits, but it also aided in the development of a farmer-owned training institution with a broad reach. If locally owned resources are effectively managed by the people, this demonstrates how technology and indigenous institutions can boost the efficiency of development projects.

2.16. Theoretical framework of the study

The basic goal of a theoretical framework is to increase the generalizability and meaning of research findings. By giving research a focus and a sense of direction, theoretical frameworks also contribute to the advancement of knowledge (Lwoga, 2010). According to Mcburney (1994: 44), a theory is "defined as a statement or series of assertions regarding relationships among variables that include at least one notion which is not directly seen but is necessary to explain correlations among variables". The role of theory is critical since it helps to shape the truth, reduces complexity, and suggests the capacity for generalization (Mcburney, 1994).

2.16.1. Sankofa Approach and Rostow's model

Sankofa method and Rostow's model serve as the theoretical basis on which this study is built. The phrase "se wo were fi na wosankofa a yenkyi" is the meaning of the African word "Sankofa", which is originated from the Akan ethnic group in Ghana.

The phrase "it is not wrong to go back and take what you forgot" was translated literally (Temple, 2010:128). "Sankofa" reminds us that to advance, we must return to our origins and accept old indigenous knowledge techniques. The *Vhavenda* people's traditional indigenous knowledge techniques have been lost and forgotten. According to the study, it is important to conserve and restore ancient indigenous knowledge techniques.

The way in which society must revive long-abandoned practices is explained in "Sankofa". The film "Sankofa" shows us that to handle current issues and challenges, Africans must re-discover ancient knowledge. Future generations will be strong thanks to the wisdom of earlier generations' lessons. The past's knowledge offers solutions to the problems that society is currently facing. It covers the conflict between Westernization and Africanism, a process that is thought to be detrimental to Africans.

The possibility exists to recapture what it means to be human in Africa using traditional indigenous knowledge techniques. The Akan people have the belief that history may be used as a guide for making plans and learning from history. Westernization undercuts the values of traditional indigenous knowledge and emphasizes the necessity for cultural advancement. In this study, the "Sankofa" technique has been employed to promote the adoption of the norms and values taught by the *Vhavenda* tradition. The methodology focuses on social interactions and practices inside the community. The tribal chief (those in leadership) who carried the people's vision is sometimes referred to by the symbolic equivalent of the word "Sankofa". As soon as a mistake is made, it can be fixed and experience can be used to draw conclusions.

The concept of "Sankofa" – looking back on the past while realizing that both good and bad things contributed to the way things are now – is crucial to this study. The song "Sankofa" is crucial to our study because it exhorts us to accept what we have gone through and to show respect for the generation that came before us. "Sankofa" have a strong capacity for recognising ancestry of kinship manner of teaching and knowledge preservation skills. Younger generations cannot be separated from the modern technological world, making "Sankofa" a crucial component of this study.

The modern age is characterized by the dominance of technology and the complete immersion and comprehension of the younger generation in this era.

Using social media platforms, deteriorating traditional indigenous knowledge practices can be easily transmitted to future generations. Through this research, we hope to create preservation methods for the *Vhavenda* people's traditional indigenous knowledge practices. In the past, older people used storytelling, music, folklore, idioms, proverbs, initiation schools (ngoma), and traditional dances to culturally enshrine ancient indigenous knowledge practices in the minds of newer generations. With the help of "Sankofa," traditional societies will create and implement cutting-edge social media platforms that will appeal to the younger generation and spread traditional indigenous knowledge practices. To preserve conventional indigenous knowledge practices for upcoming generations, this study must consider both indigenous knowledge and contemporary lifestyles.

2.16.2. Five development stages of Rostow's model

The study uses Rostow's five stages of development as a framework to show the evolution of society up until the present. The five stages of evolution described by Rostow are a method for comprehending how traditional culture evolved into modern civilization. The younger generation's curiosity will be piqued by this transformation process because modern civilization is described as one that abandoned old customs and saw exponential technological growth.

Younger generations will be fascinated to understand more about the practices when traditional indigenous knowledge practices combine with modern ways practices. The *Vhavenda* people's issue with the loss of traditional indigenous knowledge practices will be solved over the course of five development stages. The *Vhavenda* people have reason to be optimistic about the development stages since they will allow for the transmission of traditional indigenous knowledge practices to the next generation.

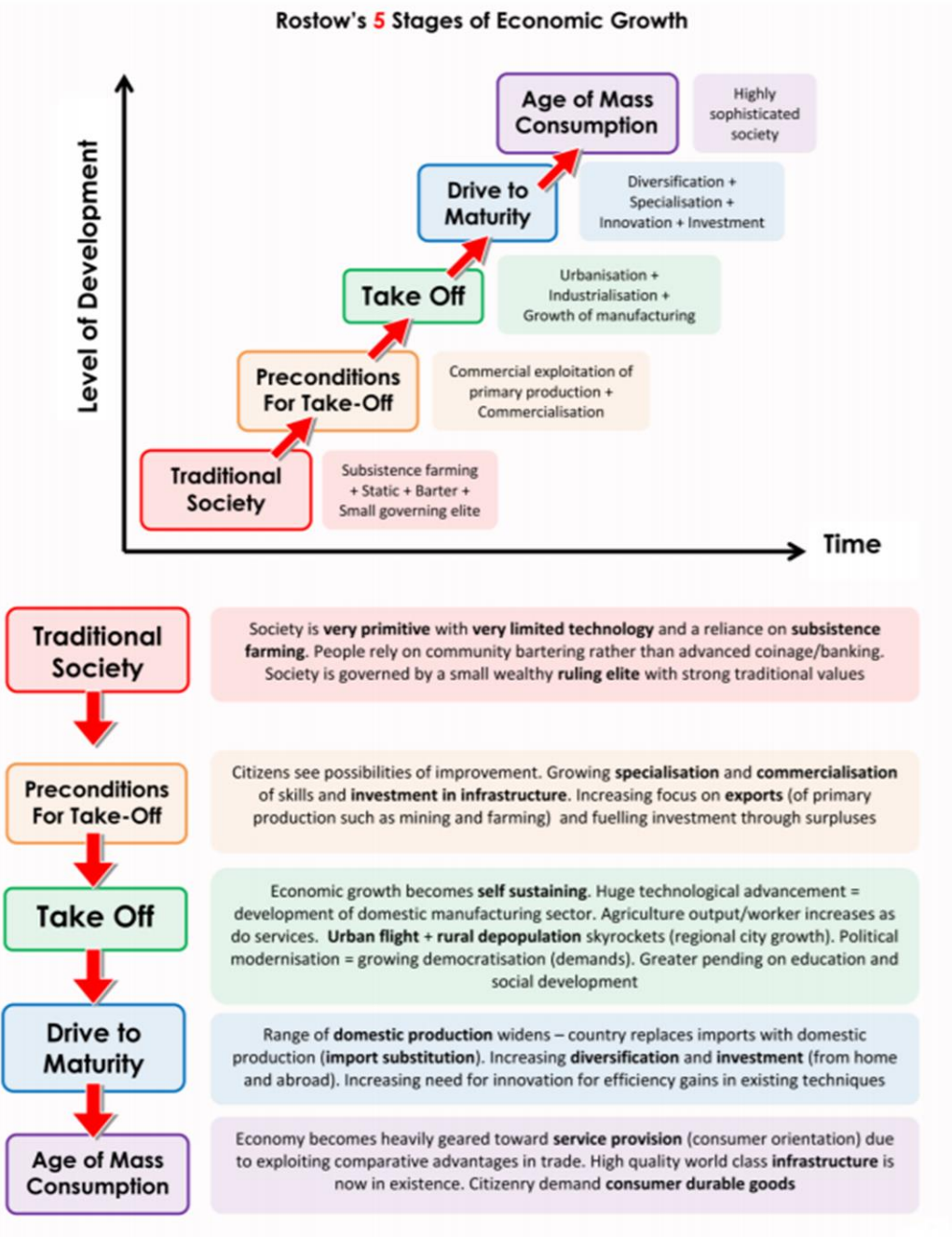
The traditional indigenous conventions and values of the *Vhavenda* people would also be learned during this period. Social media channels should be used to spread traditional indigenous knowledge, and the younger generation should be the main target of this information flow. Utilizing social media platforms is advantageous since

vast amounts of technology have displaced and disrupted traditional indigenous knowledge processes. According to Rostow's model from 1960, the strategy to conserve traditional indigenous knowledge practices was divided into five stages of development. Traditional society, precondition for takeoff, takeoff process, drive to maturity, and high mass consumption society are the five stages mentioned. Rostow's model of five phases of development was used in the study.

Below is **Figure 2.1 five stages of development**

The following information is quoted from Jacobs. (n.d.). Rostow's five stages of economic growth and development.

ROSTOW'S MODEL OF DEVELOPMENT



2.16.2.1. Traditional society

This was the beginning stage, when there was no sense of "development," when it was thought to be primitive. There are no breakthroughs or interventions at this stage since technology limitations have set a ceiling. Additionally, these civilizations typically have values and customs that leave limited possibility for modernisation or growth on a greater scale. In the past, elders used a variety of traditional ways to teach younger generations, including storytelling, folklore, music, dances, idioms, proverbs, indigenous games, and indigenous learning through churches, pictures, initiation schools, and other venues. Even though there was no formal education system, traditional techniques of teaching and learning were still used. During this time, family members instill in their offspring traditional indigenous knowledge practices. Traditional culture is the setting where conflict between indigenous knowledge holders and Western dominance was at its lowest. Western science considers this archaic culture to be barbarous, outdated, and unscientific.

The influence and control of European society, which did not value traditional knowledge, was present in the traditional society at this stage. Because of the lack of technology, advancements and improvements

2.16.2.2. Pre-condition for takeoff

As a result of the influence of Western knowledge, traditional indigenous knowledge techniques start to diminish at this point. During this time, Western knowledge has dominated our culture and has infused it with Western ideals, customs, and knowledge. In comparison to Western knowledge, conventional indigenous knowledge processes are relatively worthless.

2.16.2.3. The take-off stage

While few people were enrolled in formal schooling now, traditional culture was starting to evolve and improve. There was a growth in widespread and improved technologies. It has not yet been possible to use modern science and technology. Only on an ad hoc basis have there been technological advancements. At this point, society is transitioning from an agricultural to an industrial or manufacturing one. The economy is growing more rapidly than traditions, which is what defines it. At this

point, Western knowledge is beginning to have an impact on indigenous knowledge techniques that were previously used.

2.16.2.4. The drive to maturity

In this society, technological innovation is more commonly used. Because of the increasing sectors' technological requirements, the workforce becomes more skilled. Most society's resources have been efficiently utilized by the range of contemporary technology. The composition and caliber of the workforce alter as a civilization develops technologically. Traditional rural people's way of life has changed because of the rapid advancement of technology. The persistence of traditional indigenous knowledge practices is silenced by technological maturity.

2.16.2.5. High mass consumption

People's values shift in favor of increased purchase of luxury goods and high-class lifestyles because of widespread technological use. Because of the advent of technology, population growth has slowed significantly. Because formal schooling was less common than it is now, traditional indigenous knowledge processes were mainly used in earlier times. Utilizing various social media platforms will help you adapt your practices to modern ways of doing things because of the digitalization and modernization of everything. The younger generation understands and is inseparable from this reality, which is one in which technology dominates society. To preserve traditional indigenous knowledge techniques, the study supports the fusion of traditional and modern methods.

High mass consumption needs to be maximized appropriately to maintain the continuity of traditional indigenous knowledge preservation. In this project, high mass consumption is maximized to pique young people's interest in learning about traditional knowledge practices via various social media channels. For the younger generation to receive traditional indigenous knowledge practices, the study says that high mass consumption should be encouraged. Even though the process shouldn't be completed overnight because the traditional indigenous knowledge practices need to be maintained on their own, the study encourages the use of various social media platforms to guarantee the success of the younger generation.

2.17. Chapter Summary

The chapter included a review of the literature and a brief overview of the techniques used to preserve traditional indigenous knowledge. The following topics are covered: the historical context of traditional indigenous knowledge; indigenous knowledge practice; traditional indigenous knowledge education; oral tradition; communities of practice; knowledge preservation; the impact of Western knowledge on traditional indigenous knowledge practices; documentation of traditional indigenous knowledge; the significance of the fourth industrial revolution in traditional indigenous knowledge; and the use of ICT tools in preserving traditional knowledge. Theoretical frameworks and the conceptual frameworks of the study were discussed. The research design and methods were included in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The previous chapter reviewed literature on *ndayo* preservation techniques by the *Vhavenda* people and the ways in which traditional indigenous knowledge practices have been kept alive. The research methods and procedures used in the study are discussed in this chapter. The chapter discusses the research design, qualitative research, research site, study population, sample, data collection, data analysis, ethical measures, informed consent, voluntary participation, and confidentiality, as well as steps taken to ensure trustworthiness such as credibility, confirmability, transferability, reliability, and validity. According to Creswell (2003), methodology is a logical collection of procedures that work in harmony with one another and have the capacity to produce data and findings that are appropriate for the researcher's goals and reflect the research question.

3.2. Research design

The researcher used qualitative research design which allows researcher to delve deeper into the subject matter. A qualitative research design is a mind map with an action plan of the study's research. In order to acquire the necessary data and implement the approaches that would be utilized in the analysis, it is necessary to plan ahead and adopt the appropriate methodologies. According to Yin (2003b: 19), "a research design is an action plan for getting from here to there, where 'here' may be regarded as the original set of questions to be answered and 'there' being some collection of (conclusions) answers". Similarly, Zikmund (2000) defines research design as a thorough strategy that outlines the techniques and steps that will be used by the researchers to gather data and analyze the necessary information. In a similar vein, research design serves as the primary road map for outlining the methods and procedures for gathering and analyzing data.

3.3. Qualitative research approach

The researcher adopted the qualitative research approach in this study. The use of quotations, descriptions, and narrations is highly prevalent in qualitative research approach since they aim to record conversations, experiences, views, voices, and

meanings. A systematic, subjective method used to describe meaning is called qualitative research (Burns & Grove, 2003). The qualitative technique has been chosen since it has been able to elicit rich and detailed information from the participants as well as human live experiences, human perspectives, personal information, personal ideas and opinions, behaviours, and feelings concerning the research subject. Without focusing on notions, the qualitative method takes a person-centred, holistic, and humanistic approach to understanding human lived experiences (Morse & Field, 1996). A qualitative technique has also been employed since it is naturally suited to examining the depth and breadth of information that the target audience are capable of.

Interviews in-depth and observations of people in social and natural contexts are frequently part of it (Lichtman, 2006). Similar to quantitative approaches, qualitative approaches allow for a deeper comprehension of the subject areas because they live in their own particular setting (Miles & Huberman, 1994). According to Marshall and Rossman (1999), qualitative research presents opportunities for doing exploratory and descriptive research that makes use of the context and setting to look for a better knowledge of the person or people being investigated. The qualitative research approach was also chosen because it was convenient for both the researcher and the participants, since it could be conducted anywhere and at any given time. Qualitative approach was chosen since it uses face-to-face interviews to collect data using open-ended questions. Insights and a deeper grasp of the topic are provided by qualitative research to support further exploration.

According to Babbie and Mouton (2012: 646) the purpose of a qualitative approach is "to describe and comprehend rather than to explain and predict human behavior". A qualitative technique will be appropriate, according to Leedy and Ormrod (2010:106), "when you feel that no single reality underlies your research topic and that there are possible valid, realities relevant to the problem statement of the study". Similarly, Paton and Cochran (2002:2) highlight how, "qualitative research is distinguished by its aim, which relate to understanding some social activity, and its methodologies which generate words rather than numbers, as data for analytical purpose."

In qualitative research, the participants' experiences and perceptions are the main focus (Creswell, 2009). As various participants in this study discuss their

experiences with the entirety of traditional indigenous knowledge practices, processes, and express their feelings on traditional indigenous knowledge practices from both the past and the present, a qualitative approach naturally fits into this research. Due to its compatibility with the subject of the study, the exploratory method was utilized.

3.4. Research Site

Figure 1: Map of the Vhembe district.



The research site is the location where the research is conducted at, an area of interest. The aim is to ask specific questions of specific individuals and carrying out specific actions, all of which are local, precise, and free from remoteness, supposition, or genericity. As a result, everything happens in real time, and actual data is recorded rather than assuming anything. The study was conducted in the Thulamela and Makhado municipalities in Vhembe district.

The *Vhavanḁa* people live in the vast territorial settlement known as Vhembe, which is made up of many different families, public sacred graves, and sacred woodlands (Tshiguvho, 2008). The communities of Tshikundamalema, Gogogo, Dzimauli, Ngulumbi, Tshiavha, Mulenzhe, Kutama, and Dopeni, which are home to renowned traditional indigenous knowledge bearers, were the locations where data were gathered. The researcher is a native speaker of vernacular spoken in the chosen area and this made communication with the participants easier.

3.5. Population of the study

According to Brink (2000), population is the total set of people or things that the researcher is interested in or that fit the requirements for the study. Furthermore, according to Parahoo (1997:223), population refers to "the total number of items from which data is collected", including people, objects, occasions, and organizations. People who are aware about traditional indigenous knowledge practices and are bearers of *Vhavenda* indigenous knowledge make up the study's population. Despite the fact that *Vhavenda* people are dispersed throughout the world, the researcher concentrated particularly on those who live in the Vhembe district because the bulk of them still adhere to the traditional way of life.

3.6 Sample

De Vos (2002:199), defines a sample as a subset of measurements drawn from the population in which the researcher is interested. Burns and Grove (2005:281), consider a sample to be a small fraction of the population elements. Pilot and Beck (2008:339), regards a sample as a subset of population elements. In this study, there is less emphasis on sample representativeness, but the focus is on a sample that was able to shed light on participant's social life, contribute to knowledge and reveal deep truths about their way of preserving traditional indigenous knowledge practices. In this study, the participants were sample in the following way: there were seven female indigenous knowledge holders and five male indigenous knowledge holders. The sample size was made up of twelve indigenous knowledge holders.

3.7. Sampling procedure

Sampling is the process of choosing a sample from the entire population in order to learn more about a phenomenon in a way that accurately reflects the population of interest (Burns & Grove, 2001). Because the researcher needed information from participants with specific expertise, purposive sampling was used in this study. Purposive sampling is judgemental and a selective sampling method. The researcher made an appropriate selection as who participated in the study. The researcher adopted purposive sampling with a purpose in mind; selected those who are custodians of traditional indigenous knowledge practices. Because of specific traits that are of interest, individuals were carefully recruited for this study. Participants in this study were able to share knowledge and provide in-depth details

regarding traditional indigenous knowledge practices. They were able to clarify the issues and provide insights into the study topics.

The researcher selected 12 participants in this study. Despite the fact that there were initially more than twenty study participants, several of them withdrew during the study for reasons that they knew to be true. The small sampling size allowed for an in-depth analysis of *Vhavenda* traditional indigenous knowledge practices and capture of lived experiences. Participants who meet the described criteria have been chosen using the intentional sampling technique (Lincoln & Guba, 1995). The purposive sampling approach was based on the researcher's assessment of the subjects or items that are typical or representative of the subject under study or who are particularly informed about the issue at hand (Brick, 2000). Snowball sampling was also utilized in this study to try to discover people who were difficult to find or difficult to reach. The researcher approached the desired participants to find people who fit the requirements for participation in the study through snowball sampling. "With snowball sampling, the researcher selects a small number of subjects, who then select more knowing subjects from the population" (Gray, 2009: 152-153). During the process of data collection, the desired participants were interviewed and requested to identify other persons who fitted the profile of the research study.

3.7.1. Exclusion criteria

The population is characterized by the traits that people who do not possess it lacks, and these are the exclusion criteria (Burns & Grove 2001). Participants who refused to consent to provide the needed information as well as knowledge that they had to provide were factors that rendered the recruited participant ineligible for the study in this study. Thus, participants who were unreliable and ineligible to provide details regarding *Vhavenda* traditional indigenous knowledge practices were eliminated.

3.7.2. Inclusion criteria

The qualities that must exist for an element to be included in the study are referred to as inclusion criteria by Burns and Grove (2001). Younger and older generations are included in the study's sampling. The extensive knowledge and experience with traditional indigenous knowledge techniques were characteristics that qualified the selected participants for the study. The target participants for this study were

selected depending on whether they were dependable, possessed valuable knowledge and if they were in charge of maintaining the traditional indigenous knowledge practices of the *Vhavenda* people.

3.8. Data collection methods

The focus of the entire study research is on data collection because it is the primary method of obtaining the pertinent data that the study research needs. The primary method of gathering information for qualitative research is data collection (Greeff, 2005). Unstructured interviews and participant observation served as the primary methods for gathering data in this study.

3.8.1. Unstructured Interviews

Unstructured interviews do not have a set of pre-set questions, but the interviewers typically have a list of subjects they want to cover before the interview even begins. Unstructured interviews have a conversational flow and are typically more casual and open-ended. Unstructured interviews provide you more opportunity to adjust your questions as you go along and to ask more in-depth questions later, as you see fit. The researcher had the chance to elicit additional perspectives and opinions from interviewees. An unstructured interview is helpful when there is little or no understanding about a subject. Participants answer questions to the best of their knowledge and comprehension. This style of interviewing was utilized because it enables the researcher to ask open-ended questions and allowed the participants freely voice their opinions.

The participants were free to disclose all information on traditional indigenous knowledge practice. Participants were given the freedom to express themselves freely and provide more insightful answers to the questions. Because it was essentially a discussion or brainstorming session on the assigned topic, this requires the researcher and the participants to feel comfortable. Due to their frequent occurrence as a component of continuing participant observation fieldwork, unstructured interviews were viewed by Patton (2002), as a logical extension of participant observation. The researcher was exposed to unexpected themes during an unstructured interview, and this helped the researcher to better comprehend the interviewees' social reality from their points of view.

After consulting the participants, the interviews were scheduled and the day on which each participant would be available for the interview was noted. The interviews were conducted in a comfortable environment with no interruptions. In order to allow individuals to communicate their experiences, the researcher observed the participants for nonverbal signs. The custodians' own accounts of their experiences helped the researcher learn about the data collection process.

To make sure that no data was lost, the researcher used a voice recorder and took notes. The verbatim method was used to transcribe the data that was collected. To fully comprehend what was being said, the researcher requested for clarification from the participants'. The researcher requested participants to sign a consent form provided by the university before interviews. The interviews were conducted in Tshivenda so that the participants would feel at ease and more comfortable disclosing all of the specifics of their understanding of traditional indigenous knowledge practices. The researcher used Tshivenda to respect the participants' language so that they do not feel intimidated or disrespectful. The researcher later translated the content to English.

The material was provided by the participants based on their understanding of and exposure to traditional indigenous knowledge practices at the time, as well as their knowledge and experiences with these activities. The value of traditional indigenous knowledge practices was emphasized. The researcher was patient and accommodated all participants' circumstances during data collection process.

3.8.2. Participant observation

Participant observation is a procedure whereby a researcher actively participates in the activities of their community while observing a group of people with a shared identity. Because it was appropriate for the study's purpose, the researcher adopted to use participant observation. In *ndayo*, it was taught and practiced that the younger generation should bow to elders and meet them on their knees as a sign of respect. We also discovered that there are taboos, such as "one must not eat while one is standing", "one must not sit on the doorstep", and "one must not sit on the three-legged metals that support the pot when one is cooking".

The researcher agreed with these taboos because eating while standing up shows disdain, sitting in the doorway shields one from danger if someone passes out or enters the house, and staying away from three legged metal objects prohibits one from being burned. In order to understand why participants act in a certain way and communicate in a certain way, the researcher must blend into the participants' surroundings while also keeping an unbiased record of what is happening. Participant observation was accomplished through learning about and developing a greater grasp of the actors, dialogue, setting, and events that take place at the study site. When gathering data through participant observation, the observer really participates in the environment. It would be challenging to comprehend the entire issue if the researcher is not a member of the group.

Instead of attempting to infer the meaning of the context, the scenario enables the researcher to be open to discovery and inductive reasoning. Researchers can also use it to understand who interacts with whom, understand how participants speak with one another, and see how much time is spent on various activities. It also allows them to observe for nonverbal expression of feelings. A researcher has the chance to find out information from participants that interview subjects might not be ready to disclose. When planning a research study and deciding whether to use observation as a method of data collection, one must take into account the types of questions that will guide the study, the study site, the opportunities for observation present there, the representativeness of the participants of the population at that site, and other factors.

The goal of participant observation, according to Babbie (2015), is to assist researchers in understanding the viewpoints held by study populations. Participant observation has its origins in traditional ethnographic research. Similarly, Patton (2002), claims that observation is the orderly gathering and recording of occurrences in social settings as they occur. Being a *Venda* native, the researcher found it simpler to undertake participant observation during that time. The researcher was aware of the practices that initiates must engage in as well as other aspects of *Venda* culture.

Nga mvelo ndi n̄wana we Muvenda, we nda bebwa muṭani wa vuhosini, lune ndo aluwa ndi tshi kona u pfesesa maitete a ndayo. Ndo tevhela maitete oṭhe

a Tshivenda, sa u gudiswa u losha, u thonifha vhathu vhahulwane. Sa nwananyana o alutshelaho mutani wa vuhosini ndo tshina ndayo dzi ngaho sa Musevetho, Vhusha, Domba, Tshikanda na Ludodo. Zwikolo hezwi zwothe zwo vha zwi na mishumo yazwo ya ndeme kha u laya vhana, u ya nga u fhambana hazwo. He zwi zwothe zwo ndeludzela sa mugudi saizwi ndo vha ndi tshi divha maitele othe a uri ndi dzhenisa hani misanda u yo ita thoduluso ya manwalwa anga. Sa muthu ane na ene o tshina idzo ngoma, zwo ndelutshela uri ndi ye misanda yo fhambanaho nda swika nda tendelwa u dzhena musi vhasidzana vha tshi khou laiwa sa izwi na nne ndi si shuvhuru. Shuvhuru ndi vha ndi khou amba muthu ane hango tshina iyo ngoma musi e vhukati ha vhathu vho tshinaho iyo ngoma ene u vhidzwa shuvhuru. U ya nga ha Tshivenda muthu a songo fumbaho ha tendelwi u dzhena ngomani musi vhanwe vhasidzana kana vhanwe vhathannga vha tshi khou laiwa.

(The researcher was born in a royal family, a Venda by birth, and the researcher was well familiar with the traditions, so it was simple and clear to follow the Vhavana customs and process to enter the royal family. The researcher attended the initiation schools Musevetho, Vhusha, Domba, Tshikanda, and Ludodo, and each of them had its own unique lessons to impart. Because the researcher was an elder to initiates and not a foreigner to these schools, it was advantageous and ease as a girl from a royal family to witness the initiates when they are being guided)

3.9. Data analysis

The definition of qualitative data analysis by Bogdan and Biklen (2003), includes “working with the data, organizing them, reducing them into manageable components, coding them, synthesizing them, and searching for patterns”. Data analysis entails the steps taken to interpret, analyse, modify, and organize data in order to highlight and extract knowledge that can be put to use. Data logging, data coding, and thematic networks are some of the data analytic techniques that the researcher used in qualitative research procedures. According to Khan (2008), data logging is the procedure through which the unprocessed information from a personal interview, focus group discussion, observation, or any type of qualitative data collection was entered in a record sheet.

After data gathering, the procedure is often referred to as data documentation. Khan (2014), adds that data recording was intended to serve the aim of simultaneously documenting, description, sentiments, opinions, and insights, as well as presumptions and on-going notions about the subject matter, in addition to the data gathered through every type of data collecting. As a result of the researcher's accuracy comparisons with the recorded and documented data following data collection, the researcher can support Khan's hypothesis. To make it simpler to read later, data from the same group was gathered together in one location.

Data coding is defined by Creswell (2007), and Creswell (2012a), as the process of slicing and categorizing text to create comprehensive themes and explanations in the data. It is the procedure used by researchers to collect or "tag" stuff that is linked to a particular issue or idea (Attride-Stirling, 2001). Based on the data, which has undergone a comprehensive review, themes and sub-themes have been developed. In order to obtain the information that has been needed more specifically for the study, the researcher has taken the time to review the data more closely (including the notes that have been taken) and have listened very carefully to the voice recordings.

Immediately following the interview, the researcher had all the data broken down into digestible, insightful chunks. Ordinary, surprising, hard-to-classify, major, and minor themes were the categories used by Creswell (2012a), to categorize themes. Furthermore, according to Creswell (2012a), ordinary themes are those that the researcher might have anticipated finding, unexpected themes are those that the researcher was surprised to discover during a study, and difficult-to-classify themes are those that contain concepts that are difficult to fit into a single theme or overlap with several themes.

The focus changes depending on the methodology being utilized, although Collis & Hussey (2014:155) argue that "various approaches in interpreting the qualitative data are based on essential parts in the process." Before the research begins, it is important to fully comprehend the context, the study issue, and the culture. Although some people feel that a research project should be approached without any prior information, it is important to stress that the researcher should have a clear head and be free of any hypotheses or concepts at the time.

According to Morse's (1994), viewpoint, "information at our disposal might deny and contaminate the creation of new findings in study". A meaningful alternative explanation must be applied while theorizing the data until the best hypothesis is created, it is a process of on-going development and manipulation. Using the process of generalization to decontextualize the data would enable the theory that emerges from the study to be applied to various contexts and populations. To contextualize the findings and construct new advancements and models during this process, the researcher had to refer back to the previously accepted beliefs.

The data's contents have been distilled and arranged in this way to offer a broad explanation for what was felt. The researcher has converted the information from various formats into information that is a component of the research study by translating and transcribing it. The transcription of the information that has been gathered took time. In order to keep the information that is more related and relevant to the research study and to exclude the information that is not as relevant and does not carry weight in response to the research study, the researcher has spent more time analysing data, editing the information, and re-editing the information.

3.10. Research ethics

A branch of philosophy called ethics studies morality. Ethics define morality from an intellectual perspective and strategies for pursuing moral goals (Burns & Grove, 2009). Research ethics ensure that the rights of participants are safeguarded, protected and respected (Polit & Beck, 2008). Morality and what is considered fair and appropriate are directly related to ethics. According to Babbie and Mouton (2005), Creswell (2008) and Gray (2009), a researcher conducting social science research should be aware of the widespread consensus among researchers about what is appropriate and what is not when the researcher conducts scientific studies. The researcher had many interactions with the participants and the educator, which addressed the personal values, weaknesses, beliefs, and moral domains of the participants. The researcher should let the participants choose whether or not to participate after explaining the purpose of the study.

The researcher should inform participants that they have the option to discontinue participation when they feel uncomfortable. During the research interviews, the

researcher was able to keep specific information about the participants private and secret. If needed, the researcher also empathised with the participants when they display emotions. The researcher has a responsibility to respect the rights, needs, values and preferences of each participant. The researcher was careful and took into account each respondent's feelings during data collection. The researcher thus made an effort to interact with everyone regardless of age and express sympathy to those who will be sad, especially the older generation (since they will remember the old days).

The University Research Ethics Committee, the University Senior Management Committee, the Limpopo Province Department of Education approved the study. The project has the reference number SHSS/17/AS/05/0803. As the research was conducted in a remote area, the researcher began by asking for permission to enter the community. The researcher was introduced to the traditional leader by the traditional council and briefly explained the purpose of the research. For archival purposes, the researcher also delivered the letter from the University to the traditional figure head. The researcher also received a letter of approval from the Council of Tradition to conduct research in the field of study in return. The researcher respected what is traditionally considered sacred and private during interviews. Basic ethical principles were considered when conducting the study. Participants were not asked to provide their names, respecting strict confidentiality (Creswell, 2008). The principles were based on the idea that human rights should be protected (Brink, 2006). At the end of each interview session, the researcher congratulated the participants for their commitment to participate in the study. With the above considerations in mind, the following section has been designed to address ethical concerns throughout the conduct of research.

3.10.1. Informed consent

In order for participants to give informed consent, information must be provided about the type of information required, their level of knowledge and whether they have a choice whether or not to do so (Brink, 2006). According to Polit and Beck (2008), informed consent also means that participants have access to enough information about the research, can understand it, and have the freedom to voluntarily consent or refuse to participate in the study.

Each and every aspect of the study research must be fully disclosed to all participants, who must also give their consent in order to take part in the study. Traditional indigenous knowledge holders who participated were well informed of the nature, purpose, data collection procedures, and the information that was needed from them at the start of each and every interview session. The confidentiality and privacy of the participants was respected and participants consent to the use of the material they shared. The researcher has explicitly stated that neither the participant's name nor any other information that might be used to identify them in any way would be released.

3.10.2. Voluntary participation

Everyone who took part in this research was informed of the fact that it is only being done for academic purposes and that there is no requirement for them to participate. The researcher made this very clear to all of the participants and relevant information was provided to everyone who took part in the research.

3.10.3. Confidentiality

The term "confidentiality" refers to how the researcher handles participant information that should not be shared with outsiders without consent from the participants (Burns & Grove, 2001). The researcher has to stop the data that were collected from being revealed or made available to anyone in order to maintain confidentiality. Only those directly involved in the study would have access to the information obtained during the investigation.

The researcher has to notify the participants and obtain their consent if the data are to be used in another study, should that request come about (Brink, 2006). Names or any other information that could be used to identify participants has not been made public in order to protect their privacy and anonymity. The researcher has to conduct himself/herself responsibly and did not record or releases any private information. In this regard, the researcher only used the data that were collected for the investigation.

3.11. Trustworthiness of the study

According to Lincoln and Guba (1995), when determining the value of a study, one should consider how reliable it is. Characteristics such as portability, credibility,

reliability, validity, compliance, and trustworthiness refers to the confidence that qualitative researchers have in their data. Assessing the accuracy and validity of the study is key to determining its credibility. The degree of plausibility in data collection and analysis is the most important factor. Using different types of data methods to collect the data, the researcher was able to confirm the validity of the study. Notes and voice recordings were used as part of the experimental tools and they were also used to measure the quality of the research. Merriam (1998) warns researchers that a debate rages because the concepts of reality and validity are quantitative and positivist and do not always apply to qualitative research. With this disclaimer, the researcher attempted to present the supporting evidence described above to confirm the validity of the study.

3.11.1. Transferability

The degree of transferability measures how well the results can be used in a different setting or by different groups (Lincoln & Guba, 1995). Additionally, the term "transferability" basically refers to the generalizability of data, or the degree to which the results may be applied to or transferred to different contexts or people (Polit & Beck, 2008). Transferability is different from external validity in that it focuses on creating in-depth representations of the social environment rather than on coverage.

As a result, even outside of this study, the research findings from this study were transportable and had been used in different circumstances. Given the size of the *Vhavenda*, people and the fact that indigenous knowledge practices were therefore found in most, if not all, of the world's civilizations, the entire thesis in this case about the preservation of indigenous knowledge practices may actually be applicable to many different notions.

The concept of transferability was considered a major challenge in qualitative research methods, but the researcher was able to improve the transferability of the research and break it down into understandable concepts:

1. Explicitly outlining research methods (interviews consist of voice recordings and notes),
2. Explicitly outlining study contexts, including the times and locations of interviews, and,

3. Also outlining traditional indigenous knowledge practices and breaking them down into different categories.

Seale (1999), argues that transferability was achieved by providing a rich and comprehensive account of the environments studied so that readers would have sufficient knowledge to judge the relevance of the findings to other environments. In terms of transferability, the researcher also supported what Ritchie and Lewis (2003) call "inferential generalization", which is best explained as an extrapolation from the contexts of the study itself to other settings or contexts. In this perspective, the researcher adheres to the standards of inferential generalization associated with the study and provides documentation of the methodology on indigenous knowledge practices. The researcher shaped and linked the meanings and principles related to traditional indigenous knowledge practices by providing a critical account of the methods and processes that helped the researcher to do so.

As Ritchie and Lewis (2003) point out, it is up to others to determine whether the results are transferable to another situation, given the context and the phenomena they discovered. Careful characterization of each individual's background in the study would ensure transferability. The researcher also provided extensive background on the participants' backgrounds, allowing readers to easily engage with the study and get a clear idea of how it all began, and what was the basis of the study. By illuminating these situations and applications comprehensively, the researcher made it easier for other researchers to apply the context to another study.

3.11.2. Reliability

According to Joppe (2000:1), dependability is "the degree to which results are constant over time and an accurate representation of the entire population under the investigation, and if the results of a study can be reproduced under a comparable methodology, then the research instrument is to be dependable". According to Kirk and Miller (1986), there are three different kinds of dependability used in qualitative research. These depend on how consistent a measure was supplied over time, how stable it was over time, and how similar measurements were throughout the course of a certain time period. When information was repeated over time on the same subject or when it was used by two distinct investigators, it was considered reliable if the results were consistent and stable.

3.11.3. Validity

The traditional standards for validity have their origins in positivist terminology. Validity was one of the outcomes and a culmination of other empirical conceptions, along with things like universal laws, evidence, objectivity, truth, actuality, deduction, reason facts, and mathematical data, to name a few (Winter, 2000). What constitutes qualitative research is described by Joppe (2000:1), in the manner that follows: “the degree of validity refers to the accuracy of the research findings or the extent to which the research actually measures what it set out to measure”.

3.11.4. Credibility

In order to find the truth-value of human events as they are lived and perceived by the participants, credibility must be established (Lincoln & Guba, 1995). Credibility is more influenced by the quality of the information gathered and the researcher's analytical skills than it is by the sample size (Patton, 1990). In the same way, credibility has been attained by making sure that the population were precisely recognized and especially aware about the phenomenon being examined (De Vos, Strydom, Fouche, & Delport 2005). Direct quotations from the participants that make up the data have been transcribed. Credibility has been ensured through continued participation, persistent observation, and member verification to make sure that the reports made by participants line up with the actual practice.

Investing enough time during data collecting to acquire a thorough understanding of the phenomenon being studied is referred to as prolonged engagement, which raises the credibility of the study (Polit & Beck, 2010). Before the interviews, the researcher met with the participants to get to know them better and develop a sense of trust. When the participants display anger, happiness, or excitement, the researcher has rigorously monitored their nonverbal cues.

3.11.5. Conformability

The degree to which the research findings may be verified or corroborated by other sources is known as conformability. According to Seale (1999), auditing can also be used to demonstrate conformability when a researcher offers a methodologically self-critical account of how the research is conducted. Similarly, Lincoln and Guba (1985) use the term "conformability" of research to refer to the extent to which the

researcher can support the objectivity of the study conclusions by conducting a "conformability audit". This entails providing an audit trail made up of initial data, analytical notes, reconstruction and synthesis products, process notes, personal notes, and information about early development (Lincoln & Guba, 1985). In this study, conformability has been made possible by listening to voice-recorded participant interviews.

3.12. Chapter Summary

This chapter describes the technique employed to collect and analyse data. The researcher adopted an exploratory paradigm that was appropriate for the study for gathering qualitative data using observation and unstructured interviews in light of the exploratory nature of this research and taking into consideration the fact that traditional indigenous knowledge practice is culturally embedded. The researcher went one step further by providing a succinct description of the research setting and participants. Non-probability sampling, which was purposeful in nature, was used to select the research location and participants. The researcher described the sampling strategy used in the study as well as how reliability and ethical factors were taken into account. The presentation analysis and discussion of the information collected is covered in the following chapter.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF THE FINDINGS

4.1. Introduction

This chapter presents and discusses research findings in line with the objectives of the study which are as follows: to explore traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenda* people, to promote the advantages of doing so, and to create strategies that can preserve traditional indigenous knowledge practices *ndayo*. There were twelve participants in the interviews. The results of the participants' perceptions of traditional indigenous knowledge practices are also presented in this chapter.

The participants discussed the practices of indigenous knowledge in relation to their own personal experiences and how they had a significant impact on their development from early infancy to maturity. Participants in interviews are allowed to answer to questions with deeper insights and by sharing the most important and sensitive information because they feel comfortable and at ease. Participants can freely and comfortably contribute information in the atmosphere the researcher has created. This outcomes chapter goes into detail regarding the material that is offered and how it is both fascinating and intellectually interesting. Additionally, Mathipha and Gumbo (2014), assert that participants' biographical details are crucial since they may be connected to the actions of the community under investigation.

4.2. Biographical information of the participants

Indigenous knowledge holders identified in the study region are listed in Table 4.1 with details of their background, including age, gender and location. With the consent of the participants, the researcher decided to use pseudonyms instead of their real identity to exclude any possible link of the data with a specific person.

Name of participants	Age	Gender	Location	Description
Tendani	18	Female	Kutama	She is a girl who went through an initiation school when she was younger and now takes pride in being a part of the <i>Vhavenda</i> initiation schools.
Adziambei	25	Male	Dzimauli	He was a student at the boy's initiation schools <i>Thondo</i> and <i>Murundu</i> . He is the <i>Tshikona</i> head leader in the village of Dzimauli, and he has great love for the ancient indigenous knowledge practices of the <i>Vhavenda</i> people.
Musiwalo	33	Male	Tshiavha	He is the son of traditional leader in Tshiavha village. He understand fully about <i>Vhavenda</i> cultural rituals in <i>Dzivha Fundudzi Lake</i> .
Tshivanambi	38	Female	Tshikunda malema	She is a head girl in <i>Domba</i> initiation school. She works hand in hand with <i>Vho-Nyamungozwa</i> , the leader of <i>Domba</i> . She enjoys moving around training younger generation cultural dances. She is goal-driven in <i>Vhavenda</i> cultural dances.
Vho Tshibalo	68	Male	Dopeni	He is a surgeon, a well-known <i>vho-mainie</i> of <i>Murundu</i> initiation schools for boys for more than 38 years till today.
Vho Ratshili	75	Male	Tshiavha	He is quite knowledgeable in cultural rituals practices. He is <i>vho-khotsimunene vha musanda</i> . He is a real supporter of <i>vhamusanda</i> , his elderly brother. He has been practicing this for 45 years.
Vho Nyadenga	78	Female	Gogogo	She is <i>Nematei</i> the leader of <i>Vhusha</i> initiation school for girls. She was appointed by <i>Vho-Makhadzi vha musanda</i> to conduct this initiation school. She unites the community and the royal family because <i>Vho Nyadenga</i> was chosen from the community. She was chosen because she has vast knowledge on <i>ndayo</i> and has passion in guiding and counseling girls to live a pure life. She has been practicing this for more than fifty years.
Vho	83	Female	Dzimauli	She is a retired principal from

Nyavhulondo				Dzimauli primary school. She is a mother of 10 children, 18 grandchildren, and 5 great grandchildren and she managed to pass <i>ndayo</i> to her generational line, for more than 55 years till today.
Vho Tshisikhawe	85	Female	Ngulumbi	She is an expert, a well-known pioneer for <i>Musevhetho</i> initiation school for girls. She inherited this knowledge from her late mother <i>Vho Nyatshisevhe</i> . She practiced this initiation school and proved her vast knowledge while her late mother <i>Vho Nyatshisevhe</i> was still alive till today.
Vho Khavhakhavha	88	Female	Mulenzhe	She is a well-known and valuable person who has a vast experience with <i>Vhavenḁa</i> traditional dances. She is an advocate for the traditional dances as a way of giving <i>ndayo</i> and guidance. She has been practicing this for more than fifty-five years.
Vho Tshiambara	90	Female	Tshikunda malema	She is <i>Nyamungozwa</i> a leader of <i>domba</i> initiation school for girls and boys. She has been practicing this for more than sixty years till today.
Vho-Mabuli	93	Male	Kutama	He is an advisor to the chieftaincy of Kutama village, and an instructor of <i>mufuvha</i> and <i>muravharavha</i> .

The first participant is Tendani Makwarela, a *Venda* woman who once attended initiation school. The classes are designed to guide girls through the transition to womanhood and also each them how to behave well in a marriage. She explained,

I had to go when I was sixteen and it was compulsory, they told me that if I don't go then I won't know how to handle my husband, she further explain that, I enjoyed the process which lasted for two weeks. ... When I look at the women of today, they don't have a long heart (endurance), that is why there are so many divorce cases, when you look at women who went there you see that they don't easily divorce. ... I appreciate the lessons I was taught since I had no one else to teach me since I am the only girl in my family.

The second participant is Adziambei who is 25 years old; he attended *murundu* and *thondo* during his time. He explained,

Murundu and thondo instilled pride and endurance to me that I believed to have as a man. This is done through seclusion, suffering and pain that happens in the circumcision rituals which involves being isolated from the community and going to an isolated area, usually on the mountains during the winter season for a number of weeks and even the whole month being taught discipline; how to be the head of the family, how to build a family etc. All this was a way of building me to be proud of my family and once I have completed the whole rituals I take pride in becoming a man who is ready to take on my responsibilities. After murundu, I am responsible, matured in understanding difficult issues. Murundu builds the character of men to stand in times of hardships and challenges like divorce and unfaithfulness in marriage. He further indicated that, the way he has been groomed during murundu and thondo initiation schools, he can boldly stand and attest that there is no challenge that can stand against his way, against his marriage. This tells us that there is a lot that Vhavenda traditional indigenous knowledge practices have done to our community members, to our families.

The third participant is Musiwalo who is 33 years old. Musiwalo is very passionate in learning Vhavenda cultural rituals. Musiwalo enjoys disseminating information about Dzivha Fundudzi Lake. People from different areas who visited Dzivha Fundudzi Lake, Musiwalo is the one who gave them the information that they are interested to know. He is like tour guide of that lake, because he escorts all visitors who escort them and cascade information.

The fourth participant is Tshivanammbi who is 38 years old. She has indicated that “during our time when undergoing different traditional indigenous knowledge practices, there are different information that we have learned. Some we have learned through taboos, some through initiation schools, and some through cultural dances. Tshivanammbi”. She further stated,

When I give birth to my first child, elderly people guide me on how to take care of my child as well as to take care of myself, during that process I was not allowed to sleep with my husband until the child developed the teeth. During our time young woman have mentor whom they confide their issues. In addition, when I was breastfeeding the baby it is a taboo (Tshiila) to prepare

food for my husband. Within the process of three months after the baby born, I had to wake up early in the morning before doing anything and wake my child up and sprinkle her/him milk (Mikando) to her/his body parts more especially the eyes, ears, joints as well as the private parts. After doing that I had to stretch the child's joints using my elbow and that exercises continued up until three months. On that stage of three months the child should not be carried by young woman or a woman who is menstruating.

In addition, during our time a young woman who is menstruating was considered impure and it was easy for her to spread different diseases to a child, (Nga inwe ndila ndi uri nwana muḽuku u a lemelwa arali o farwa nga muthu are maḽuvhani, zwa ita uri nwana a fhise, a tshuluwe. Zwine ndi zwithu zwi no fara nwana uri a lenge u melisa, u melisa ndi amba u mela maḽo ngeno kha muthu wa munna khundu dzawe dzi a fhisa a farwa nga tshineto musi a tshi ya mabayini).

Similarly, the taboos (zwiila) protected the young men and women from various diseases that were spreading from men and women, for example, if a woman has undergone an abortion, miscarriage or after giving birth there was a certain period that a woman had to wait before going back to her husband or being intimate with her husband. If a woman followed or abide by those rules and taboos (zwiila) they had longer life and high life expectancy than those who do not abide or respect those rules.

The fifth participant is *Vho-Tshibalo* who is 68 years old, a traditional healer (*Vho-maine*), who stays at Dopeni. *Vho-Tshibalo* is a respectable man in the area, he stays with his wife, six children and three grandchildren. *Vho-Tshibalo* is a well-known traditional healer who conducted boys' initiation schools in Dopeni. Boys were coming all over the villages to Dopeni in order to attend *Murundu* for whom *Vho-Tshibalo* was a surgeon and an expert on it. There was not a single incident of death in *Murundu* initiation school in this area, when *Vho Tshibalo* was leading. Several cases of death have been reported in boys' initiation schools in other areas. After boys have graduated from *Murundu* initiation school, they have to attend *Thondo*, these are very sensitive initiations schools that boys have to undergo.

Who Tshibalo said:

During initiation, there are some taboos (zwiila) that might be followed, before Murundu starts, a traditional healer Vho-Maine of that initiation school who is responsible for circumcising boys spend the whole week at the mountain where circumcision is going to take place. He will be busy preparing the area and demarcating that area with his muti. After doing that rituals is then that they set a date in which the boys will be admitted to initiation school. Some of the taboos (zwiila) was that the father of the initiate had to abstain from sex during that period of initiation rites, he had to abstain from sex as sign of fasting for his son's circumcision wound to be healed quickly because failure to do so, his son's wound would take long to heal and this was detrimental to health. The parents of the initiate are encouraged to refrain from quarrels while the son is in initiation school. It is rare for a mother to know that her son is going to be circumcised; she has to be informed after circumcision to prepare food for him.

Who Tshibalo continued to explain that in some other villages they do not allow food from home, parents of the initiates have to pay certain amounts for food, and senior boys called (*vhadabe*), who have already attended *Murundu* cook for the initiates until it ends. The community has to be informed that during initiation time they are not allowed to conduct other activities like *davha*, which refers to an agreement where community members go and ploughs the field of another member, and after doing that work, the owner of that particular field must give community members home brewed beer to enjoy the whole day as a thank you. Women, who would like to go to the veld and collect firewood, have to be warned not to go near the place where *Murundu* initiation school is located. Furthermore, he continues,

“... after the initiates graduate from Murundu, we have to go to the rivers with boys and check these boys if they would be able to bear children after marriage. We would also check the urine and sperms of young men if they would be able to impregnate a woman and once we discovered this, we would keep it as secret amongst ourselves and find ways to deal with this discovery in the future when the young man was later married or has found a wife”.

The sixth participant is *Vho Ratshili*, a 75 year old man, who was introduced to the researcher by *Vho-Tshibalo* through a snowball technique. *Vho Ratshili*, is a well-known *vho-khotsimunene vha musanda vhane mafhungo othe a musanda a swikela kha vho*. This means the news receivers are the uncles of the royal family. *Vho-Ratshili* is quite knowledgeable about cultural practices. *Vho Ratshili* stays in *Tshiavha* with his two wives, eight children and seven grandchildren.

The seventh participant is *Vho Nyadenga* who is a 78 year old woman, who stays in Gogogo with her last-born daughter and four grandchildren. The other four children of *Vho Nyadenga* stay in other villages. She is a well-known *Nyamatei*, the leader of *Vhusha* initiation school in Gogogo. *Vhusha* is the second initiation school for girls, where elderly girls who have already graduated from *Musevetho* have to attend. When the family would like to send their girl child to attend *Vhusha*, her aunt would approach *Vho Nyamatei*. *Vho Nyamatei* would inform *vhakoma* the mother of the chief and *Vho-Makhadzi vha musanda*, where arrangements are made, and the senior girls who had already attended *Vhusha*, (called *vhadabe*), would move around the village inviting other community members who qualify, to attend *Vhusha*.

The eighth participant is *Vho Nyavhulondo*, who is an 83 year old woman who stays at Dzimauli with her daughter in-law. Her daughter in-law is *Vho-Grace*; she is very proud of *Vho Nyavhulondo* because she attests that when she was married to *Vho Nyavhulondo's* son, she had not attended *Vhusha*. Her mother in-law arranged so that she had to attend *Vhusha* even though, she was already married. She is always thankful for her mother in-law because when there is a *vhusha* initiation, she has to go boldly because she is not *shuvhuru*. *Shuvhuru* is a name given to a person who did not attend any initiation school during his/her time. *Vho-Nyavhulondo* as a retired principal passed *ndayo* to her students and community. She is highly praised by her community for being a woman who has given guidance to many children who are now living comfortable lives because of her, and they give credit for their success in life to her. *Vho Nyavhulondo* is very determined when guiding mature girls; more especially, those girls who involved themselves in sexual relationships before marriage; those girls who are no longer virgins, because their moral was low when they realized that older individuals were aware of their non-virgin status.

The ninth participant is *Vho-Tshisikhawe*, she is an 85 year old woman who is a respected traditional healer in Ngulumbi, and she stays with her son, daughter in-law, six grandchildren and four great grandchildren. *Vho-Tshisikhawe* is a pioneer in *Musevetho*, the first initiation school. *Vho Tshisikhawe's* experience of *Musevetho* was inherited from her late mother *Vho Nyatshisevhe* a very knowledgeable and recognized traditional healer in the village.

The tenth participant is *Vho Khavhakhavha*, she is an 88 year old woman who stays in Mulenzhe village, and she is highly respected for her vast experience with *Vhavenda* traditional dances. She explains that these dances and songs provide *ndayo*, in a tacit manner. She explains that traditional dances i.e. *Tshigombela*, *Malende*, *Tshikona*, and *Tshifasi*, are traditional dances that were performed with certain songs being sung and played by traditional instruments. These songs and dances had different meanings and appealed to individuals differently.

The eleventh participant is *Vho Tshiambara*, she is a 90 year old woman, who stays in Tshikundamalema. She is a *Nyamungozwa*, a leader of *domba* (python dance) initiation school which was attended by girls who had already attended *Vhusha*. She is a supervisor, a mentor and the principal who give direction to all activities that are taking place during this dance.

Vho Tshiambara said:

“These girls who attended domba after their parents received their lobola, when they graduate from domba you will see them by having lots of gifts given by their in-laws. Domba as the last initiation school in both girls and boys last more than six months, even a year depending on the arrangements of the traditional leader on that village, is not like Vhusha which is lasted for only one week or two and Murundu which is lasted for a month and after that the initiates graduate.”

The twelfth participant is *Vho-Mabuli* a 93 year old man, who stays in Kutama village. Vho Mabuli is a respected person to Kutama village and the royal family of Kutama praised him because of his great contribution. *Vho-Mabuli* started advising the late chief *Vho Kutama*, the father of vhamusanda *Vho Kutama*, who holds the current position. Although *Vho-Mabuli* is old, *Vho Kutama* is one of the chief's advisors.

4.3 Themes that emerged from the findings

This section present themes that emerged from the analysis. The themes are categorised under the following study research questions;

- (a) What were the traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenda* people?
- (b) What are the benefits of preserving traditional indigenous knowledge practices by *Vhavenda* people?
- (c) Which strategies can be developed to preserve traditional indigenous knowledge practices by *Vhavenda* people?

4.3.1 (a) What were the traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenda* people?

Vho Mabuli reported that:

“In olden days, indigenous knowledge practice was a way of upbringing children. Ndayo was done and practiced preparing children to live and behave in an acceptable manner. Ndayo was practiced in different stages of a child’s development starting from an infancy stage, adolescence stage, teenage stage, young adult’s stage, and adult stage. Each stage has its own traditional way of guiding younger generation. Traditionally there are different methods that are used to preserve ndayo. These traditional methods meant to guide, directs, nurture, supervise and warn children so that, they have to grow up being taught their cultural norms and values. These traditional methods were storytelling, folklore, songs, dances, idioms, proverbs, indigenous games, initiation schools, churches, images, and indigenous learning”.

Contrary to what is happening today, findings show that there is a need to refine and modify traditional activities to meet today’s lifestyles. In olden days, the younger generation were enculturated by adults, but nowadays formal education and social media have taken over. The younger generation spend much of their time in formal education and on different social media platforms. Traditional indigenous knowledge practices should be disseminated through social media platforms. Furthermore, in the olden days, the *Vhavenda* family structure was extended where traditional

methods worked well; it differed from nowadays with a family structure which is nuclear, and child headed families. In a similar vein, Ramavhunga (2019), states that, it is difficult nowadays to pass *ndayo* due to child-headed families. Traditional ways of disseminating *ndayo* to current family are not easily applicable due to Western knowledge and modernity.

Vho Mabuli further stated that:

“During our times storytelling was a powerful tool for sharing information, raising awareness, empowering and capturing children’s imagination. Storytelling offers a basic foundation for children’s learning and has proven useful in teaching values, practices, cultural beliefs, ways of life and relationships. In our times the family has an important role to play in bringing up children in a responsible manner. The family was the first institution that should lay a solid foundation in child’s behavior. When the child was born in the family the elderly people like parents, grandparents, uncles, aunt, siblings, and other members of the family have a huge responsibility to enculturate children through storytelling. During the evening grandparents sat around the fire and narrated the stories to the children. Some of the stories portray the acts of being selfish, kind, wealth, respect, tolerance, bossy and happiness. Participant further indicated that, storytelling brings people together, connects older and younger children and play a significance role for sharing and passing down of traditional wisdom, treasure, and knowledge. Storytelling was a way in which elderly people enculturate traditional indigenous knowledge practices to younger generation”.

In addition, elderly people serve as the living libraries of their communities holding memories, wisdom, and experiences of the past that can be passed on through storytelling. Stories enhance knowledge and learning by improving long-term memory and recollection of information. When children are encouraged to tell stories about the information they have learnt, it can support learning because information becomes less abstract and becomes integrated as part of the children’s practical knowledge. These results are supported by Ngulube and Lwoga (2007), who state that, storytelling is one of the important sites of explaining indigenous knowledge practices, and they are a vehicle for transmitting indigenous knowledge to be

resuscitated in schools and in the community so that the future generation are not disadvantaged.

In addition, Vho Mabuli, further stated that,

“Indigenous knowledge practice is a way of living because without indigenous knowledge practices, I don’t think I would have become what I am with all my values and principles of life, life changes, having a well-grounded family and children. Indigenous knowledge practices prepared me on how to live and behave around with other people and also encouraged me to have respect (thonifho), while at the same time respecting what other people are and their beliefs”.

The results are inline with Absolon’s (2010) views, the author states that our thirst and yearning for knowledge is quenched through listening to other people’s stories. Some African counties emphasised storytelling to start from family, child-nursery, and ECD centres. When children are exposed to storytelling at an early stage, it will advantage them to build their confidence and to ease stage fright. Storytelling build, mould, and shape character of a strong leadership.

Although storytelling seems to be the possible way to disseminate indigenous knowledge practices to younger generation, but nowadays the scope is very slim since formal education and social media keeps our younger generation busy. The other reason is that younger generation stay in nuclear families and some are child-headed, where there are no elderly people who can teach them traditional indigenous knowledge practices.

Vho Nyadenga indicated that:

“Besides storytelling where the grandparents narrated to the children, they again used folklores. Folklore is one of the old ways in which knowledge was disseminate from elderly to young children. Folklores are forms of stories that entertain and educate children and it help in shaping and moulding their characters. Folklores prepare and instruct children to reflect the values of being honest in life, being obedience, courageous, hard work and perseverance. On the other hand, it warns children against jealousy, pride, greedy, laziness and cruel. Nowadays younger generation suffer the

consequences of living competing life because of jealousy, pride, and cruelty. In addition, indigenous knowledge teaches me to take care, not to interrupt the elderly people when talking, not to speak to the elderly while standing as this is regarded as being disrespectful showing good manners (mikhwa), not to clean or work around doing house chores while singing, making noise and not to cause disruptions or hassles in the household. Nowadays the younger generation is often seen as the source of problems and discord within families due of failure to accept guidance”.

Furthermore, there are folk songs that are used to warn girls to distance themselves from boys because if they do not distance themselves they may end up pregnant at an early age. An example of one such song is:

Ndilindee-ndilindee.

Ee! Ee! Vhasidzana

Ndilinde! Ndilinde!

Ee! Ee! dani ri vhe ri tshi tamba;

Ndilinde! Ndilinde!

Ee! Ee! nhe ri tamba na nnyi?

Ndilinde! Ndilinde!

Ee! Ee! Hu na buka ivhi;

Ndilinde! Ndilinde!

Ee! Ee! la matambo mavhi;

Ndilinde! Ndilinde!

Ee! Ee! taku taku zhoto

Ndilinde! Ndilinde!

Ni ri ni tshi tamba;

Ni sendele murahu

Ndilinde! Ndilinde!

The translation to the song is as follows; “hey you girls, when you play, step aside, move backwards, because there is a monster, the monster plays rough, and the monster may run and eat you”. In other words, the song is warning the girls that, boys are dangerous, when girls are playing, they should not play with boys, they have to be careful if they do not want to get in trouble. The song is discouraging and cautioning girls to refrain playing with boys. In every song that was sung there are some norms and values to be learnt. Findings from the study show that there is a need for integrating traditional indigenous knowledge practices with formal education to entertain and educate younger generation. These findings were confirmed by Ramavhunga (2019), who stated that every traditional folk song has to convey meaning to an individual.

Vho Nyadenga further stated that,

“We also learnt through dances and songs. Songs and dances formed an integral part of our daily lives. Many of the rites and ceremonies feast and festivals were performed with the accompaniment of songs and dance. The ceremonies, feasts and festivals are also an important source of teaching. Songs and dances are essential to the African ways of life, it entertain and brings enjoyment to people. Songs and dances teach younger generation norms and values of the society. In addition, cultural dances i.e. tshigombela, tshikona, malende and tshifasi are cultural dances that are performed with certain songs being sung and being played by cultural instruments These songs and dances had different meanings that they carried and space to each individual according to their own understanding and what they felt within them. Tshivenda cultural dances are performed during special occasions, tshikona is played during traditional leader, chief’s, king’s burial, and during placement, when conducting rituals ceremonies, celebrating victory. Tshigombela, Malende and Tshifase played during joyous celebration, wedding ceremony, welcoming ceremony, opening ceremony.

An example is the song being sung to celebrate and praise the traditional leader, chief and king:

Ahee vho-Mphephu wee!

Ndi khosi khulu ya Venda

Ahee vho-Tshivhase wee!

Mahosi a Venda

Ri a vha luvha mahosi a Venda

Translation of song: “King Mphephu, our majesty, his Excellency of *Vhavenda* people, king Tshivhase, our royal kings of Venda’s, we honour you, and we praise you”.

Traditional leaders earn respect, but that respect and honour given to traditional leaders is no longer there, due to lack of discipline from the younger generation. Khupe (2014), is of the view that, both young and old in Mqatsheni express closeness to the local environment and they appreciate the resources given to them by nature. She further stated that, many of the participants take part in traditional practices such as ingoma (song and dance) and poetry commonly performed at celebratory functions traditional rites relating to the initiation of boys and girls as well as virginity tests for girls are also practiced. Nowadays the younger generation does not see the value of traditional songs and dances. They are attracted by Western dances like ballroom dances, kwasa kwasa, and jive.

Vho-Nyadenga further stated that, proverbs and idioms were used to warn and reprimand younger generation who shows stubbornness after being guided. In addition, proverbs were spurs to knowledge, condensed wisdom of great ancestors, philosophy and morality. Furthermore, proverbs convey how to treat people with respect, dignity, empathy, and kindness. She further stated that, indigenous knowledge practice also meant to instil discipline in younger generation, so that if a child does not listen to guidance from elderly people, the child ends up facing serious consequences and having misfortunes. In olden days members of the younger generation who break the rules were not tolerated in families. Members of the younger generation who break the rules were punished they would have embarrassed the family. According to Ramavhunga (2019), in the olden days, the younger generation was expected to follow instructions without question. However, in

contrast to those times, disciplining the younger generation today can be risky and troublesome. Whether you are a parent or not, imposing punishment on a child can lead to potential dangers and consequences that must be faced.

Examples of proverbs that have been used when children do not listen to guidance and end up in trouble are:

- *U sa pfa hu tunya mavhudzi*- this means that for every action there is a reaction and consequences that follow.
- *Funguvhu lo ri thi laiwi la fhira mudi lo kovhela* – this means that in everything you do today will impact your tomorrow.

Examples of idioms that have been used when children do not listen to guidance and end up in trouble or experiencing misfortunes are:

- *U konyolela matanda ndevheni* – this means to fall on deaf ears.
- *U dzula nga ndevhe* – mean to turn a deaf ear.
- *Thoho yo oma* – this means that an individual who is stubborn.

Vho Nyavhulondo stated,

“During our time there are several indigenous games that we played, games like mahunḁwane, mufuvha, muravharavha and ndode. Indigenous games were planned for children to be taught cultural norms and values, tolerance, respect, and entertainment to the younger generation. When we were growing up as young kids we could play games like ‘mahunḁwane’ which was a game where we would play and divide ourselves in different small family groups wherein they would be a father, mother and children and we would imitate a real family. These shaped us into wanting to have families of our own and also instilled a structure of having a healthy family relationship in our minds. Although it is a game, but it builds full responsibility to younger generation. During mahunḁwane we had to spend three to four weeks out there in the fields. Community leaders educate girls on how to be intimate with boys (cuddling and fondling is permitted) but they adamantly promote sexual

abstinence until marriage. We were taught skills and techniques on how to play with boys without being penetrated. We grew up playing such games and would not hear that one of us fell pregnant, it encourages woman not to be deflowered before they are married. It also teaches us self-control and how woman can take charge of their bodies.

In addition, mahunḡwane proved that even when we could play around together, we were so disciplined that it was rare to find teenage pregnancy amongst these groups who were part of mahunḡwane. The discipline that was instilled to us during mahunḡwane safeguard us against dreadful diseases that spread due to infidelity and not being faithful to our partners. The discipline safeguard us from ill practices in our society, things like killing, raping, young boys sleeping with their mothers and grandmothers. This shows that traditional indigenous knowledge practices are an important part of the Vhavanḡa people and without its continual practice them our generation will be completely blinded and will wither instead of prospering like we did. Other than socialising traditional games provide younger generation with different skills and also keeps them from alcohol and drug abuse. Traditional games are the mirror of real family because they enable younger generation to see good and the bad of the action that one may take within the family”.

Daswa (2018), stated that the traditional indigenous game such as *Mahunḡwane* prepare members of the younger generation physically, socially, intellectually, and economically with maturity. She further indicates that members of the younger generation enjoy imitating their parents during (*mahunḡwane*), where they build temporary houses. Temporary houses resemble the real family structure. The father will act the role that has to be played by men and the mother and child will do the same. In addition, participants affirmed Erny (1981), who stated that; the girls imitate their mothers in such activities as cooking, grinding, fetching water and firewood. In similar vein, Biyela (2016), states that apprenticeship (learning by doing) is still regarded as a common tool in preserving indigenous knowledge in communities.

Vho Nyavhulondo further indicated that,

“According to our culture initiation rites are seen as fundamental social values and the focus for initiation rites is to pass knowledge from one generation to another. Initiation rites are designed to prepare younger generation from childhood to adulthood. Initiation rites are places where knowledge about how to be a proper man and woman are shared with younger generation. In this initiation rites younger generation are taught about sexual knowledge, hygiene, respect, accountability, responsibility, discipline, leadership, tolerance, patience, perseverance, self-control, faithfulness, secretive, chastity and Ubuntu. The process of initiation rites had stages, Musevhetho, Vhusha, Domba, Tshikanda, Thondo, Murundu/Muḽa. Initiation schools are seen as way of reviving culture, good morals, and societal norms and values. Although parents, elderly, and community members are the ones to build morals and values to younger generation. Initiation schools fill gaps by providing, building, preparing and laying the strong foundation to younger generation to be responsible adults in future. Although initiation schools are not intense like before human morale must be preserved through formal education, and social media platforms”.

Vho Nyavhulondo further stated,

“Musevhetho is the first initiation rites attended by both boys and girls, it usually lasts three months. It is practiced in the evening at the traditional leader's kraal or traditional healer's house. Participant asserts Milubi (2000), who stated that, Musevhetho initiates a girl from a baby to a stage of puberty i.e. before the girl starts menstruating. Musevhetho played an important role in reducing early sexual engagement amongst younger generation. Furthermore, Musevhetho encouraged us to abstain from sex and discouraged us not to lose our virginity before marriage. In addition, Musevhetho played an important role in preventing unplanned teenage pregnancies that are happening today. We are taught to expect physical changes in our body so that we are not surprised and afraid to talk, e.g., when we see menstruation. We are taught that when a girl sees menstruation, she must immediately inform her aunt. Her aunt is the one to inform parents that our child has grown up. That is why we are encouraged to have good

relationship with our aunt and our uncles because when there is something they are the once to be consulted before we consult our parents.

We were taught the importance of hygiene, cleanliness and how to handle ourselves during menstruation period. Furthermore, we were taught to respect and be humane to our elders by kneeling down when talking to them. We had some painful experience during these initiation rites where they have to put stick between my thighs and instructed me to walk with that stick. When we were about to graduate from this initiation rites, we were taken to a secluded place on the river bank, where the principal, surgeon of Musevhetho, traditional healer branded us with a mark on the outside of my thigh. The branded mark was a password for me to have access to attend when these ceremonies taken place. The brand serves as a proof for the possessor that I have undergone initiation rites even if I have forgotten the laws (milayo ya musevhethoni). In all this painful experience, we were prepared to be responsible, patience and perseverance when grown up. Although we have undergone painful experiences during Musevhetho, we enjoyed being part of the initiation school, because during our time, it was a pride to be part of initiation school”.

She continued,

“After we have graduated from musevhetho we proceeded to the second initiation rites called Vhusha. Vhusha was held at the royal place because it was the ceremony that was sanctioned by the royal family. Vhusha was led by Vho-nyamatei, she was the one who was running all the activities that took place during Vhusha initiation rites. Vho-nyamatei was the one who take care of Tshivhambo, Tshivhambo is the hut where Vhusha took place, and it is the hut where ngoma, mirumba (instruments used during Vhusha initiation rites e.g., drums) are kept. Vho-nyamatei is the one whom the aunt consults if her brother’s daughter is about to be admitted to Vhusha and Vho-nyamatei should take the matter to vhakoma (the mother of the chief)”.

Vho nyamatei informs the senior girls (vhadabe) a day before the initiate is admitted to Vhusha to move around inviting suitable people who qualified to attend Vhusha. Vhusha takes place during school holidays because initiates and their senior

(*vhadabe*) should go to the royal place and spent the whole week or two staying there. *Vhusha* is attended by mature girls; those who have already started menstruation. Initiation rites usher virgin girls from the innocence of childhood into a new life as womanhood. In other words, it can also signify a transformation in which the initiate is 'reborn' into a new role. When they started their cycles, they are taken to their aunt and other elderly people who prepare them in their transition to womanhood, on how to behave and carry themselves while in a household, how to handle challenges or issues that may arise in a household when they have children, and how to raise their children and take care of their husbands in the future.

During *Vhusha* initiate girls spent the whole week with '*luvhundl'* smeared all over their bodies and do not wash, even when they eat. During these initiation rites the emphasis was on learning *milayo* which were guidelines about how to be a good and responsible woman. Participant affirmed Blacking (1998), who stated that, *milayo* were kinds of instructions in a form of songs, dances, symbolic acts and is translated as wisdom. There was also a stress on girls' virginity testing during these initiation rites. This is often a trial period for the girls to honour their family name and clan by proving that they are still virgins. During that process two calabashes were used, one intact and another one broken. The girl is examined by elderly people to check if her hymen is still intact. Often the girl and the family are proud if the girl passed the test.

Mulaudzi (2004) argue that families who went home with broken calabashes would hang their heads in shame as that would mean that the chances of someone asking their daughter's hand for marriage is minimal and where possible the number of cows for *lobola* would decrease. Aunts, elderly women and female relatives guide and prepare these girls who are not virgins before accompanying them to their in-laws place. These girls who are still virgins would go with bridesmaids with a closed calabash to present it to their in-laws as proof that she is still pure. And when the in-laws receive the closed calabash, the in-laws would celebrate and shower the bride with gifts and slaughter goats as a symbol of their joy for receiving a pure bride.

"In addition, *Vhusha* taught me to keep secrets and confidential information. Initiation rites is a training where you prepare young women to what the world is all about and how to take responsibilities", said Mufamaḍi & Tholene (2010), a researcher with freedom park trust, a presidential legacy project designed to

preserve the heritage of South Africans. She continued to say, “It instils a sense of pride in your culture and gives basic survival skills. The first step of ritual is for parents to pick a date shortly after their daughter hits puberty where she is ordered to stay at home for a few weeks or even a month to cook, clean and wash laundry ‘woman duties’. The point of this is to instil the fastidious work ethic of a home maker. They then go to a certain place (usually the chieftaincy’s grounds) for two weeks to gather with other girls of their ages or older where in during that time elders lead workshops and role-play exercises with a lesson plan that centres on moral values are taught to them.

Although there are people who have a negative picture about initiation schools. This implies that there were people who still supported the traditional indigenous knowledge practices. There was a need to modify an initiation school like *Vhusha* due to the value that it holds to build and prepare responsible individuals to face the future. The findings of the study show that modifying traditional indigenous preservation methods to contemporary methods would sustain traditional indigenous knowledge practices. Modern preservation of *Vhusha* through social media platforms would minimize ill-discipline to younger generation today. Although the process of disseminating traditional indigenous knowledge practices through social media platforms would not be an overnight issue. The whole process would need very strong collaborations of community members, indigenous knowledge holders, traditional leaders, researchers, tertiary institutions, local radio stations, different TV’s stations to support the programme. Indigenous knowledge holders should be given slots and platforms to talk and disseminate traditional indigenous knowledge practices.

FIGURE 4.1

This is the picture of *Vhusha* initiation school captured from: *Vhusha* for nobles, commoners, and Christians by Blacking in 1969



Ndayo dza Vhusha (Educational songs and dances of vhusha)

Vho Tshisikhawe indicated that,

“After we have graduated from Vhusha, we have to wait to go to domba initiation school when it starts. We were now continuing with our training and preparation to womanhood. The training and preparation that we received in domba were the continuation from the training that we got from Vhusha. Domba was led by Vho-nyamungozwa and Vho-nyamuthenga. Domba is the advance initiation rites of Vhusha and it is held at the chief’s kraal. Around Venda very few senior chiefs are the once who are sanctioned to conduct domba, it was not conducted by every chief. Although there are initiates that were enrolled to domba without participating in Vhusha but the procedures were that, we start from musevhetho, after graduating from musevhetho we proceed to Vhusha and after graduating from Vhusha we now enrolled to domba.

Same applied to the lessons and training we received from these initiation rites, they start from simple to complex. Musevhetho and Vhusha are more theory than practicals and domba most of ndayo that we received they have to demonstrate e.g., they have to demonstrate how we should conduct sexual intercourse, girls are taught about sexual hygiene, we were taught that no matter how tired I am when going to bed. I must not show my tiredness to my husband because if my husband needs services I had to provide otherwise he will have multiple sexual partners. We were taught that we must always bath when going to sleep.

If I am menstruating, my husband should know before we go to bed, we have to communicate it politely for my husband to prepare himself that we won't engage in sexual activities because chances of infection is high during menstruation. In addition we were taught how to behave or handle ourselves when pregnant. During our time the in-laws had to determine even the food that I should eat when I am pregnant. We were advised that during pregnancy and childbirth we had to exercise for endurance during labour. We were taught all this because domba was attended by matured girls who are about to go to their marriage, some parents of initiates when sending them to domba they have already received lobola from their in-laws. In addition, in olden days it was compulsory to attend all these initiation rites because non-compliance had its consequences as your parents or guardian had to pay fine”.

FIGURE 4.2

This is the initiates of *domba* dance captured from: The Symbols Associated with Female Initiation Rites Ceremonies of South Africa

***Domba* initiation rites**



Vho Tshibalo stated that,

“Murundu/muḽa/hogo is circumcision rites for boys. Murundu was practised far away from the village in the mountains/ in the bush. The principal of murundu was known as Madala, while the surgeon of murundu was known as Maine. Maḽala was responsible for all activities taking place in this initiation rites like food, firewood, water, messenger to inform the chief if there is anything, whereas maine was responsible for the physical and mental wellbeing of the initiates. The first initiate to be admitted to murundu, the one to open the session is the son of the traditional healer in charge of it. If he does not have a son, they had to find the boy from the royal family or from noble family. In addition, murundu was a preparatory stage for boys from innocence to being a manhood and perceived as a preventative measure against sexually transmitted diseases”.

Milubi (2000) affirmed that boys at *murunduni* were taught certain behavioural expectations that the society would have on them as adult men. It was said that after boys have been circumcised, the elders tell them that they have sharpened the “spear” (spear refers to circumcised penis) and with the spear they would be able to

strike the 'thulo'/girl. This means that such a boy has permission to have sexual intercourse with girl.

FIGURE 4.3:

The following picture shows *Venda* boys coming from the mountain initiation school (*Murundu*).

Murundu initiation school captured from: *Venda* initiation school



Vhatukana vha *Murundu*

Vho Tshibalo further stated,

“Ndayo is a practice that has long been practised even in the bible, is an old practice that has been going for a very long time, it start at the origin. In the book of Genesis during creation time, God ordered Adam and Eve in the garden of Eden that they should eat all the fruits which are in the garden except the fruits which is in the centre of the garden that was God’s instruction given to man. God continue to guide man when giving laws to the Israelites through Moses. God continue to guide through prophets, through apostles till now when God using pastors in the church. In the book of Titus 2: 3-5 states that “in order to train the younger women to love their husband and children, to be self-control and pure, and to be good housewives who submit themselves to their husband, so that no one will speak evil of the message that comes from God”.

Traditional indigenous knowledge practice *ndayo* can also be passed and preserved at churches by pastors, church leaders, youth leaders and other church members. When Pastors and church elders give out guidance to the younger generation, they do it out of affection, care and great diligence so that they can see the guides prosper and flourish in the life and endeavours. *Ndayo* is done out of love, because the guider expects to see good results and fruits from the person they are giving guidance. Vho-Tshibalo also reported that,

“When I am giving ndayo, I am like a person who is praying for you or wishing blessings upon you. I am like a person who is planting a seed and I am expecting to reap the best harvest / fruits from the guided. To receive guidance is difficult, but after taking and following the guidance, the guided is looked up to by everyone”.

The church plays an important role in guiding younger generation, because they are taught morals; what is wrong and right. They were essential ceremonies that taught different groups special sermon related to that group such as sermon about birth, death, and sermon about marriage. Members of the younger generation learnt how to dress, how to take care of themselves, how to wait for a life partner. Elderly women took responsibilities to prepare younger generation who are about to start their family, a bridal shower. Members of the younger generation who are about to be married they have their own special sermon. The same process that takes place at initiation school like *vhusha* to prepare younger generation can be done at church they would conduct it in a Christian way. This implies that, there were no forms of ill-treatment from senior girls called *vhadabe* as part of training. Although the initiates have already engaged herself in sexual intercourse, they should not deflower them, they would have to council the initiates to keep themselves pure and withdraw themselves from unfaithfulness till God provide them with the right partner.

Vho Ratshili stated that,

“Traditional indigenous knowledge practice can be preserved in a tacit manner (images). Traditional indigenous knowledge practice can be applied at homes, schools and communities. During our time, I was taught how to behave and how certain things were done through the influence of people around me. During our times we learnt how to take care of ourselves and

how to take care of other people by seeing our parents, guardians and relatives live and treat each other and carrying themselves and then follow their footsteps, hence a boy can learn how to treat women from seeing how his father treats his mother and a girl can learn that she has responsibilities like cooking, cleaning from just seeing her mother doing so and she herself does the same without being taught. Another example of images is body postures when the child is doing something wrong in the present of the parents or guardians and instead of talking to that child the parents can just look at the child in a nasty way and the child will refrain from what he/she is doing”.

Vho Ratshili further reported that, children copy and portray what goes on in their surroundings, hence traditional indigenous knowledge practice can be preserved through images. When the people around them portray good behaviour and good principles, so they are passing traditional indigenous knowledge practice indirectly to the next generation. Images are more like the proverb, which can be used widely in ordinary conversation. Erny (1981) is of the view that, elderly people used them when dealing with children to convey precise moral lessons, warnings and advice, since they made a greater impact on the mind than ordinary words. Elders sometimes used myths to explain things that were not easily understood. Myths were allied to legends, and they were based primarily on daily events.

Much of the ethical teachings are delivered to children through folktales’, most of which had happy endings and involved a triumph over difficulties and virtues, such as communal unity, hard work, conformity, honesty and uprightness were reflected in many of the folktales. By listening to folktales, children learned a lot about human problems, faults and weaknesses. If we may check nowadays, many young people commit crime and destroy their future because of peer pressure.

Vho Tshisikhawe indicated that, traditional indigenous knowledge practice can be preserved through indigenous learning, as learning has a purpose of responding to actual needs, interests and problems of the individual and their communities. Learning is crucial for empowering the individual for intelligent, appropriate and dynamic responses to the challenges in life. Traditional indigenous knowledge was instilled in young people through informal learning. On educational grounds, learning

has been seen as facilitating deeper contact between children and their studies or the educational process as a whole, on psychological grounds it aid the socialization of children in the ideals advocated by child-centred educators. Sinclair and Lillis (1980) argue that on economic grounds it is interpreted as permitting the transfer of useful knowledge and skills to the younger generation or to the population with benefits to the individual and to the society generally. In the past traditional indigenous knowledge practice was also passed on through the implementation of traditional indigenous learning in schools. It was part and parcel of the school's educational system and was applied through books (which included storytelling, folklore, folktales, proverbs and idioms).

Furthermore, educators were used to give traditional indigenous knowledge practice through learning more about indigenous learning and trying to implement it in schools as part of the school's curriculum. The relationship that educators created in schools with the learners as a way of accessing the means to pass guidance to the learners to either warn them from misbehaving teaching them the right means of good behaviour in a school environment as well as at homes. Educators gave guidance to learners as a way of giving traditional indigenous knowledge practice; they do this through the everyday process of teaching them not only the school curriculum but also how to behave at the schools and how to behave even after the school journey is done. Today these traditional indigenous learning were eroded and disappeared because of the influence from Western knowledge

Similarly, educators were the most important agents because they mould learners, discipline them and see how the children behave on their daily life. Traditional indigenous learning was involved the use of deterrence or inculcating fear in children. They were to conform to the morals, customs and standards of behaviour inherent in the clan. Bad habits and undesirable behaviour, such as; disobedience, cruelty, selfishness, bullying, aggressiveness, temper tantrums, theft and telling lies were not tolerated. Children were discouraged from indulging in what was regarded as bad habit by ridiculed with a funny or nasty nickname. Participants affirmed Kenyatta (1938), who stated that deception, is another method, especially with younger generation to discourage them from acquiring bad habits. A child was expected to learn by seeing and imitating from elderly and mentors like their

educators. A child usually subjected to a gradual process of training according to age and sex.

In addition, to safe guard traditional indigenous knowledge practice in nowadays generations is through documentation and social media a platform because younger generation are inseparable from social media. It is important to featured traditional indigenous knowledge practice to social media, it can stimulate and awakened younger generation's interest to listen to traditional indigenous knowledge practice and learn more about what indigenous knowledge entails. Traditional indigenous knowledge could be preserved as information in a form of a documents, book source or any other electronic research and advocacy network. Participants confirmed Bathelt, Malmberg and Maskel (2004), who indicated that indigenous knowledge should be seen as the bottom foundation to education. In addition, Adeniyi (2013), notes that African indigenous knowledge practice was poorly managed and some ideas vanish once the custodians die. In the light of the above, libraries can acts as repositories of indigenous knowledge to ensure that it is accessible and usable in enhancing sustainable development.

4.3.1. (b) What are the benefits of preserving traditional indigenous knowledge practices by *Vhavenda* people?

Traditional indigenous knowledge practice is an important knowledge within the *Vhavenda* people, and this knowledge played an important key role in the society. Traditional knowledge is at the core of indigenous identity and its transmission from one generation to the next must be preserved, protected and encouraged. Traditional knowledge was transmitted between generations through stories, songs, dance and initiation schools. However, global histories of colonialism exploitation and dispossession continue to undermine and undervalue these aspects of life. There are different people who benefited from the preservation of traditional indigenous knowledge practice: Children, parents, community, schools and churches.

Children

Vho-Tshiambara explains that "ndayo" is a process through which a person receives guidance on aspects they are unaware of. The guide imparts this knowledge to ensure that the guidance received aids in leading a good life presently and also

prepares them for the future. In addition, children who underwent "ndayo" exhibited notable differences compared to those who did not receive it. Those who received "ndayo" showed respect, discipline, and a commitment to upholding it. On the other hand, children who didn't undergo "ndayo" tended to be irresponsible, causing embarrassment and worry for their parents. The disciplined children proved easier to manage, as they accepted and understood discipline even through non-verbal cues like sign language used by the elderly, whereas the undisciplined ones struggled to comprehend this subtle form of communication.

Children who were well guided would distance themselves from the childish activities and acts. The lifestyle of children who received guidance shed light to those who did not received guidance. This process was the responsibility of all elderly people within the community. There was a saying that said, 'It took the whole village to raise the child', 'but when the child was not guided the village was not blamed only the family was blamed. The researcher reiterated that family was the first institution that should lay a solid foundation to a child. Vho Tshiambara stated that, children who accepted guidance are well grounded. These children are being highly valued, obtain good morals and respect their cultural values. When these children were listening to storytelling it served as an entertainment, build their listening skills, and also keep them busy.

Those indigenous games prepare them to be disciplined and responsible men and women. Traditional indigenous knowledge practices withdrawn children from the streets, alcohol, and drugs. Children learnt basic life skills, sexual education, to tolerate, obedient, perseverance, honesty, and hard work. They can solve conflicts peacefully and respect cultural values. When children accept guidance, they learn to forgive, learn social skills, and promote positive socialization. Traditional indigenous knowledge practices build their confidence and they become physical fit. When children accept guidance, they raise their family name and their parents would be proud of them. (*Nga Tshivenda n'wana a tshi thetshelisa musi a tshi laiwa, u vhidzwa u pfi ndi nwanan'wana*). Traditional indigenous knowledge practices build strong characters and moral values to our children. Traditional indigenous knowledge practices discourage children to engage themselves in sexual activities while still young.

Family/parents

Vho Khavhakhavha indicated that, it was the responsibility of family to guide their children while they are still young. Parents, grandparents, uncles, and aunts take responsibility to instil morals and values to their children. When children accept guidance, family/parents are well represented. When other family/parents were reprimanding their children when doing wrong things, they refer their children to those who were behaving well. Even when their children were ready to be married their parents do not hesitate to hand them to their in-laws because they were being proud of their children. When the child was disciplined and passed the virginity test, the parents would send her to the in-laws with the closed calabash, as proof that your daughter in-law is pure. Parents do not hesitate to charge *lobola* to the in-laws. The main reasons for parents to send their children to initiation schools is to teach them responsibility.

Community

Vho Khavhakhavha explained that, when the community has young people who are responsible and well-grounded, the community does not struggle when they have gatherings, because much of their time would have been spent on finding solution to community problems i.e creating jobs for the younger generation than to discuss crime, fighting, hijacking, murder and rape, and other ill-discipline towards the youth. Traditional indigenous knowledge practice minimizes conflicts between community members. *Ndayo* brings stability in a community. *Ndayo teaches young people to be respectful to their elders and community leaders' i.e civic leaders and traditional leaders.*

Schools

Vho-Tshisikhawe indicated that, schools as formal institutions should reinforce discipline to children. In olden days children were engaged in cleaning their classrooms as well as their surroundings. Learners no longer respect their teachers, they are ill-disciplined, vandalize school properties, bully other learners, swear at teachers and other stakeholders within the school, and even bring dangerous weapons to school. Teachers find themselves hesitant to reprimand children due to

the flag raised about children's rights. However, it is essential not to overlook the fact that children's rights should be balanced with their responsibilities.

If *ndayo* as an agent of respect and discipline would be re-instated at schools, schools would be a harmonious place for children, teachers, parents, and the whole community. Teachers no longer having passion to guide and discipline children because learners would tell them that they will report them to the police. Nyamnjoh (2004), stated that, education, plays a pivotal role in enlightening communities and can be used as a vehicle to promote the use of traditional indigenous knowledge practices for developmental goals. The World Bank (1998), add that learner's benefits knowledge from living, working in their communities, homes, and local activities. All this knowledge plays an important role in their lives. Traditional indigenous knowledge has nothing to do with a socio-economic productiveness, but focuses on improving personal growth morals, values, and norms. Although, education in Africa has been and mostly remains a journey fuelled by an exogenously induced and internalized sense of inadequacy in Africans and endowed with the mission of devaluation or annihilation of African creativity, agency, and value system.

Churches

Vho-Tshisikhawe indicated that, if *ndayo* would be revived in churches, pastors would not struggle and spending their time counselling and reprimanding younger generation. Nowadays, there is no difference between believers and non-believers. If non-believers fall pregnant, even the believers also fall pregnant inside the church. In church younger generation has been guided that sex before marriage is a sin, younger generation do not consider that, that is why non-believers would not come to church because they cannot see the difference between them and the believers. The community expect believers to be exemplary to non-believers. Pastors and elders conducting younger generation seminars, youth camp, youth conferences and youth services to guide them so that they should shed light to the non-believers. When the believers take their position and stand firm the country would be healed. The word of God said: 'If my people who are called by my name will humble themselves, and pray and seek my face, and turn from their wicked ways, then I will hear from heaven, and will forgive their sin and heal their land'.

4.3.1. (c) Which strategies can be developed to preserve traditional indigenous knowledge practices by *Vhavanḡa* people?

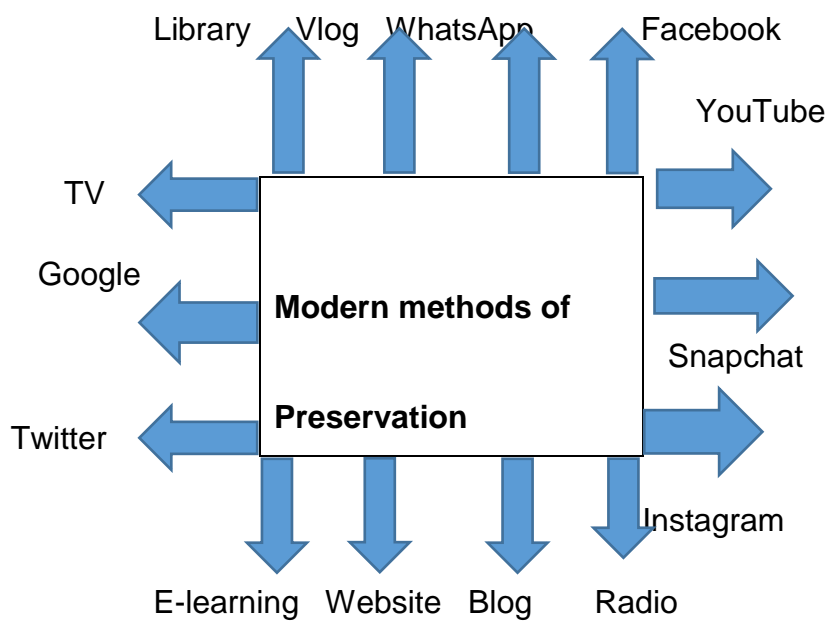
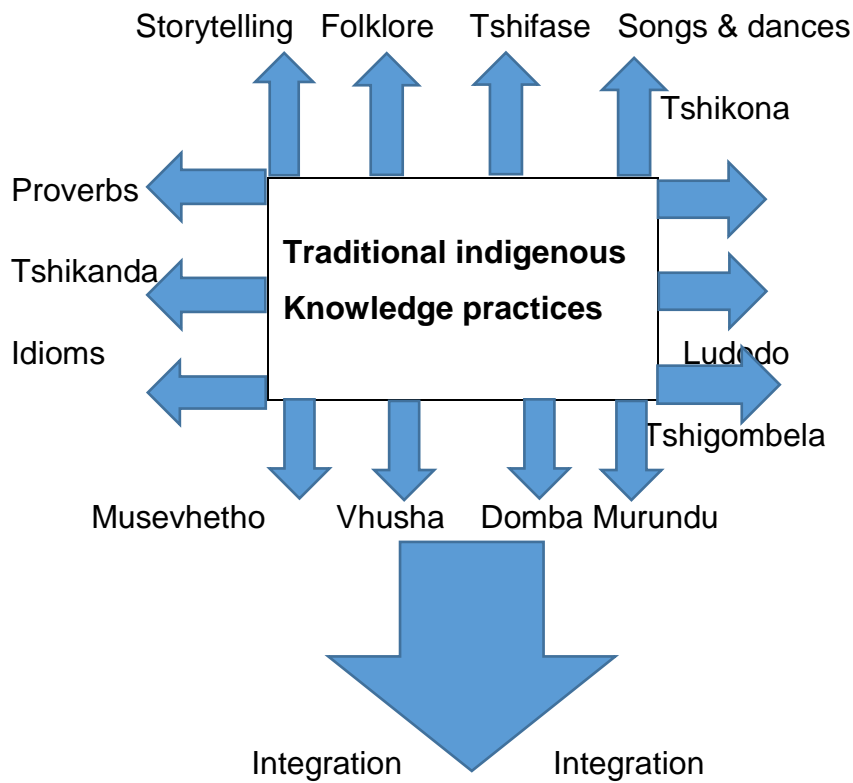
Modernity in traditional indigenous knowledge practice

Fourth Industrial Revolution (4IR)

Findings of the study showed that, over time things evolve hence it is important to incorporate the traditional indigenous knowledge practices with the technological changes (fourth industrial revolution). The Fourth Industrial Revolution has reshaped people's lives and the communication system as a whole. Fourth Industrial Revolution benefits both elderly people and younger generation. Embracing fourth industrial revolution would be an advantage to the younger generation as they will have access to traditional indigenous knowledge practices.

The fourth industrial revolution would form part of the preservation of traditional indigenous knowledge practices. Ukwueze (2012), stated that, information, and communication technology (ICTs) tools play major roles in improving the availability of indigenous knowledge systems and enhancing its blending with the modern scientific and technical knowledge. In addition, Owiny, Mehta and Marenski (2014), proposed the use of social media and mobile technologies in the creation, preservation, and dissemination of indigenous knowledge to reach a wider audience in the community. The following diagram shows how we can incorporate the traditional indigenous knowledge practices to the modern methods practices through different social media platforms. Traditional indigenous knowledge practices ought to be integrated to modern methods of preservation that interest younger generation.

FIGURE 4.4 Development strategies to preserve traditional indigenous knowledge practices



The above mentioned structure shows the development strategies to preserve traditional indigenous knowledge practices.

Findings of the study show that collaboration of traditional indigenous knowledge preservation and modern preservation methods would restore norms and values of traditional indigenous knowledge practices. The context of development strategies would blend and integrate the traditional indigenous knowledge practices and modern methods of preservation. In the olden days traditional indigenous knowledge practices were inculcated to younger generation by elderly people through traditional methods. Nowadays these practices were no longer applicable due to formal Western based education. Younger generation start formal education at an early age such that the chances of having time with elderly people inculcating traditional indigenous knowledge practices is limited. When members of the younger generation are at home, they are busy with school based activities as well as online learning activities. The only chance for them to learn traditional indigenous knowledge practices were through social media platforms. Although elderly people are willingly to pass and disseminate traditional indigenous knowledge practices to younger generation, school based activities and advancement of technology keeps them occupied.

4.4. Development strategies methods of preservation

4.4.1 Twitter

Findings of the study showed that, Twitter is an open platform that people vocalise their opinions, so in the process of people vocalizing their opinions, indigenous knowledge holders should clear the misconceptions and stereotypes about traditional indigenous knowledge practices. Through such interaction, indigenous knowledge practices can be one of the trending topics on Twitter. The younger generation would use Twitter to interact with different aspects related to traditional indigenous knowledge practices. When they interact about traditional indigenous knowledge practices learning would have been taking place. These who do not know about traditional indigenous knowledge practices, they would be exploring and gaining new knowledge about *ndayo* practices. Findings of the study confirmed that Twitter is a real-time information network where individuals can send 140-character text messages (tweets) to their followers. In addition to connecting with families and friends, Twitter can be used by businesses and farming communities to broadcast

their merchandise or commodities for sale, check prices, and interact with customers and suppliers.

4.4.2 Facebook

Findings of the study showed that they would be different posts of traditional indigenous knowledge practices from the indigenous knowledge holders. The younger generation that interacts using Facebook would learn about traditional indigenous knowledge practices. Most people use Facebook, and this will give indigenous knowledge holders hope that the knowledge would reach the younger generation.

4.4.3 YouTube

Indigenous knowledge holders would use YouTube to show case video clips about the importance and benefits of traditional indigenous knowledge practices. When members of the younger generation share the videos, traditional indigenous knowledge practices would be spread and disseminated from one individual to the other.

4.4.4 WhatsApp

Information regarding traditional indigenous knowledge practices would be shared via text message. The younger generation would benefit from such traditional indigenous knowledge text messages. Indigenous knowledge holders ought to familiarise them with these types of social media platforms. This would assist members of the younger generation to get responses from their queries easily and quickly because indigenous knowledge holders were the source of this knowledge.

4.4.5. Instagram

Indigenous knowledge holder's Instagram ought to be filled with different pictures of traditional indigenous knowledge practices. The younger generation would be sharing pictures about different aspects of traditional indigenous knowledge practices, e.g., *Domba dance*, *Vhusha*, *Murundu*, *Tshigombela*, and *Tshikona*. When members of the younger generation view these different pictures, they would be eager to know about them and by so doing learning would be taking place.

FIGURE 4. 5

Below are examples of different pictures of *Vhavenḁa* traditional indigenous knowledge practices, like initiation schools and dances

This is the picture of *domba* dance captured from: The *domba* dance collected by Nḁgota



Domba initiation rites

FIGURE 4.6

This is the picture of Tshigombela dance captured from: The *Venda* tribe – *Venda* people



Tshigombela dance

FIGURE 4.7

This is the picture of Tshikona traditional dance captured from *Venda* land Muzika



Tshikona dance

4.4.6. Snap chat

There would be different filters that represent traditional indigenous knowledge practices. The individual would embrace different traditional indigenous knowledge through the use of filters.

4.4.7. Website

The younger generation would have access to traditional indigenous knowledge practices in the convenience of their own home. Members of the younger generation would have access to the information they require when conducting their tasks regarding traditional indigenous knowledge practices. Members of the younger generation who were not staying with their grandparents would have access to the information through the website.

4.4.8. Blog

Members of the younger generation would be able to comment on blogs regarding different topics on traditional indigenous knowledge practices. The information would be accessible to the younger generation since they understand the age of blogging. This is the right platform where members of the younger generation share their views and ask more clarity where they have uncertainties.

4.4.9. Vlog

There would be videos about *Vhavenḁa* traditional indigenous knowledge practices on the website vlog. These videos would be educational and informative to members of the younger generation. The platform would be very essential to members of the younger generation because when they require information, information would be easily accessible, and by so doing traditional indigenous knowledge practices would be disseminated.

4.4.10. Library

Findings of the study showed that the younger generation would have access to get various sources regarding traditional indigenous knowledge practices in books, documents, and journals. Findings of the study confirmed what IFLA (1994) found, the author mentioned that, the public library was the local centre of information, creating every kind of information that was available and without delay on the provision of services to its users. In addition, IFLA (1994), further stated that the services were provided on the idea of equality of access for all, despite age, gender, language, religion, or social rank. Similarly, Anyira et al., (2010), state that public libraries can assist local communities in preserving traditional indigenous knowledge through resources, skills in collection, capturing, storing and retrieving. Participants confirmed Okore et al., (2009), who stated that libraries can make use of traditional indigenous knowledge experts and village elders to engage in talk shows as a way of getting and acquiring indigenous knowledge from the knowledge holders. Similarly, Chisita (2011), agree that libraries need to intensify programmes that promote the use of traditional media as basis for knowledge sharing relative to the needs of the community.

4.4.11. Radio

Local radio stations should have different programs that engage custodians of traditional indigenous knowledge practices. When these programs are implemented those that are not informed will be well informed through those programs. Parents ought to support and encourage younger generation to listen to these programs and to participate so that they will be able to learn about their culture. The initiative works with partner radio stations to plan and deliver special radio campaigns and programs that are designed to address a specific development challenge.

4.4.12. TV programs

TV channels should implement shows and documentaries where the custodians of traditional indigenous knowledge will teach about the importance of *ndayo*. These programs will highlight our origins. Through these programs traditional indigenous knowledge practices will be disseminated to the younger generation and they will be learning about their culture. Government should support different TV channels to provide slots for indigenous knowledge holders to talk about traditional indigenous knowledge practices.

4.4.13. E-Learning

The younger generation will acquire knowledge about traditional indigenous knowledge practices from different social media platforms. Members of the younger generation will entertain themselves and learn about culture through mini online tests and quizzes. Those quizzes will stimulate their interest to know much about traditional indigenous knowledge practices. Indigenous knowledge holders ought to be ready to prepare these quizzes about traditional indigenous knowledge practices to engage younger generation timeously. Indigenous knowledge holders ought to be creative and innovative to prepare fascinating quizzes.

4.4.14. Google docs

Indigenous knowledge holders ought to create free Web family, wherein they would have to collaborate with participants. Indigenous knowledge holders will not be confused about participants' comments because indigenous knowledge holders have to tag the participant he/she wants responds to. This a smart way of collaborating with the participants because it gives indigenous knowledge holders choices in terms of language usage. Indigenous knowledge holders must transcribe the recorded audio or video text. In olden days people relied on dictionaries and other relevant sources like, books, and libraries to get information, but nowadays they have their quickest methods to get information that is Google. When members of the younger generation are struggling with certain activities, they resort to google for quick solutions. When traditional indigenous knowledge practices are found in different social media platforms, it helps members of the younger generation to get the information even online. The Google docs' platform is popular with students and urban populations.

4.5. Chapter Summary

This chapter presented data analysis linked to the key research questions. Data was analyzed on the preservation methods of Vhavenḁa traditional indigenous knowledge practices. The chapter dealt with findings which were aimed at answering the research questions with regards to how traditional indigenous knowledge could be preserved. The following chapter focuses on the summary of results, conclusion, and recommendations.

CHAPTER FIVE

Summary of findings, conclusions and recommendations

5.1. Introduction

Chapter one outlined the background of the study, followed by the literature review and theoretical framework in chapter two. Chapter three outlined the research methodology and chapter four provided the research findings. Mathipha et al. (2014:191), assert that “the last chapter of the thesis needs to focus on the conclusions and recommendations about the main findings of the study”. This chapter reflects the research journey that has been travelled and be able to show how the research plan and problem have been addressed. The reflecting journey has been guided by the findings that was presented in chapter four and the objectives of the study. This chapter provides the aim of the study, evidence about whether the objectives have been met, contribution of the study, limitations of the study, conclusion and recommendations.

5.2. Summary of research findings

5.2.1. The traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenḁa* people

The first objective has been achieved because the findings of this study indicated that, traditional indigenous knowledge practices are important knowledge within the *Vhavenḁa* people and this knowledge played an important key role in the society. Findings of this study showed that traditional indigenous knowledge practices build, shape and moulds the character and attitude of an individual and teaches them respect, discipline, responsibilities, values and good principles of life. Participants demonstrated that their grounded lifestyles and stable marriages were attributed to the practice of traditional indigenous knowledge. The study's findings indicated that elderly individuals effectively prevented the spread of diseases and premature deaths among the younger generation by adhering to specific taboos (*Zwiila*). The participants believe that the lifestyles of young people nowadays leave a lot to be desired due to their involvement in crime and unruly behaviour. This is attributed to the abandonment of traditional indigenous knowledge practices.

Participants demonstrated a sense of pride in their traditional indigenous knowledge practices and expressed no shame or embarrassment regarding them. They expressed that this study offered them a platform to pass their traditional indigenous knowledge practices before they die. The study's findings revealed that traditional indigenous knowledge holders expressed concern over the erosion of their knowledge, fearing that it might not be passed down to future generations. Participants had a strong feeling that African ways of guiding younger generation are the only hope to restore morals, norms and values to our communities.

5.2.2. The benefits of preserving traditional indigenous knowledge practices *ndayo* by *Vhavenda* people

The objective of highlighting the benefits of preserving traditional indigenous knowledge practices has been achieved, as the study's findings demonstrated that when this knowledge is comprehended, it can be effectively applied in various life situations. This study also showed that elderly people used traditional indigenous knowledge practices, to resolve various challenges and difficult issues within their family, communities, and the society. This shows that indigenous knowledge holders regard traditional indigenous knowledge as their guiding principles, akin to a sacred bible. The findings of this study indicated that without traditional indigenous knowledge practices, it would be difficult for *Vhavenda* people to reprimand young people. The study's findings revealed that the younger generation often discusses their rights when elderly people offer guidance and reprimand them regarding norms and values. Through traditional indigenous knowledge practices, the younger generation learns that failure to accept guidance comes with consequences. Thus, traditional indigenous knowledge practices played a significant role in sustaining and enhancing basic skills in younger generation.

It is through traditional indigenous knowledge practices that elderly people managed to keep very sensitive information within their family. Elderly people used traditional indigenous knowledge practice to resolve the issue of men who were unable to impregnate his wife. The study's findings provided evidence that traditional indigenous knowledge practices fostered tolerance and endurance among the younger generation. This is evident as current divorce statistics show a decrease in passion and tolerance between couples compared to previous times. Thus,

traditional indigenous knowledge practices orientated and ushered younger generation from an innocence of childhood into the new roles of adulthood, embracing womanhood and manhood.

The findings of this study highlighted the significance of traditional indigenous knowledge practices, as they encompassed essential rituals performed for ancestral purposes, guiding individuals on what should be done. Initiation schools were encouraged as they provided the younger generation with a lifetime syllabus, preparing them for the knowledge and understanding required to navigate the world. They graduated from one level to another depending on the ages, because after the girls graduated from *musevhetho*, they move to the second level which is *Vhusha*, from *Vhusha* they proceed to *domba*. Girls attended all these initiation schools because initiation schools prepared them to be responsible and disciplined. Boys attended *thondo* and *murundu/muḽa* to prepare them to be responsible and matured.

Murundu/muḽa was attended during winter on top of the mountains for the whole month, but all boys who have attended *murundu/muḽa* would come back home being healthy, happy, and proud that they were real man who are fit to face the world. This implies that when the initiates come back from *Murundu*, their attitude, behaviour and lifestyles would have completely changed. If the initiate used to play with girls and may bath in the presence of his mom and other siblings, he would now withdraw from such and demand private space, to show that, he is grown up. The findings revealed that traditional indigenous knowledge was transmitted through a variety of communication channels, including songs, storytelling, games, dances, images, idioms, and proverbs, all of which served as valuable sources of guidance and wisdom.

5.2.3. The development strategies to preserve traditional indigenous knowledge practices by *Vhavenda* people

This objective has been met because, strategies have been developed to preserve traditional indigenous knowledge practices by *Vhavenda* people. Traditional indigenous knowledge holders passed this knowledge during indigenous games, songs, dances, churches, storytelling, folklore, folktales, images, initiation schools, idioms and proverbs. When traditional indigenous knowledge holders engaged younger generation in all these activities, preservation, indigenous learning and

teaching were taking place. Findings of this study showed that indigenous games like *mahundwane* promotes discipline, patience, self-respect and responsibility while cultural songs and dances engages the younger generation keeping them occupied and protect them from getting involved in alcohol and drug abuse. The findings of this study showed that elderly people reprimand younger generation using body language more especially when the child is doing nasty or wrong things. Through this study findings indicated that elders served as the living libraries of their communities holding memories and experiences of the past that can be passed on through traditional methods. The findings show that educators are the most important agents to build, moulds and shape younger generation's characters.

The results of this study have proven that the preservation and documentation of traditional indigenous knowledge practices in libraries, on websites and on all social media platforms enable indigenous traditional knowledge to be accessible to everyone. Holders of traditional indigenous knowledge have transmitted their beliefs and practices to the scientifically educated younger generation. Indigenous knowledge holders should transmit and disseminate these traditional indigenous knowledge practices before they die, because when they die, the knowledge is gone with them. The preservation of traditional indigenous knowledge practices is important for future generations to trace their culture, belonging and identity.

5.3. Originality and contribution of the study

The study is original because little has been studied on the methods of preservation of traditional practices of indigenous knowledge, in particular the Ndayo by the Vhavenda people. The preservation of traditional practices of indigenous knowledge transmits the values, customs, culture and way of life to the Vhavenda people, lest the younger generation remain cultureless and lifeless. Apart from that, it combines traditional knowledge practices of indigenous peoples with modern ways of life and key to weakening the western knowledge system and dominating traditional indigenous knowledge practices. Through this study, Indigenous knowledge holders now have opportunities and platforms to transmit traditional Indigenous knowledge practices to the younger generation through modern practices. The preservation of traditional indigenous knowledge would be a concern on various platforms such as e-learning and traditional community gatherings. Traditional Indigenous knowledge

practices would be accessible as they have to take place on different platforms such as social media, where the younger generation spends most of their time. Another contribution of this study is that traditional indigenous knowledge practices, especially *Ndayo*, would be accessible and available to everyone from the comfort of their homes through websites and libraries.

It is, therefore, envisaged that this study would contribute to the existing literature on how to preserve traditional indigenous knowledge practices. This study can, indeed, pave and broaden the scope of other researchers who would like to further their studies on traditional indigenous knowledge practices of *Vhavenda* people. This study has contributed to instil a sense of pride in the *Vhavenda* people, educate younger generations about the experiences of the past, and provides basic survival skills in life. The importance of the study is to restore the dignity and respect among the younger generation and older generation because when the younger generation are well informed about traditional indigenous knowledge practices they behaved in an acceptable manner.

This study restored hope to elderly people, who suffered the trials and tribulations of underdevelopment of traditional indigenous knowledge practices caused by Western knowledge. Another contribution of this study was that, traditional indigenous knowledge holders posed and presented their indigenous knowledge in different technological devices through the Fourth Industrial Revolution. This study is original by filling the gaps between the elderly and the younger generations, because elderly people describe the Fourth Industrial Revolution as a phenomenon that disempowered the societies and brought instability, whereas younger generation see the Fourth Industrial Revolution as a phenomenon that empowered societies and helps them to adapt to modern ways of life. Members of the younger generation feel empowered by advancement of technology because it makes it easier for them to gather information, communicate and organize, and they are experiencing new ways to participate in modern ways of life.

Another contribution of the study is to develop strategies that can preserve traditional indigenous knowledge practices. Phillips and Pugh (2005: 62) indicate that “there are a number of routes to demonstrate the originality of research, including the development of new methodologies, tools and techniques, new areas of research,

new interpretations of existing materials, new applications of existing theories to new areas, or new blends of ideas”. This study was guided by the Sankofa approach because Sankofa is where younger the generation can learn traditional indigenous knowledge practices.

The Department of Education’s curriculum in Life Orientation focuses on aspects that encourage learners to participate in traditional indigenous knowledge activities such as *ndode*, *muravharavha*, *khadi*, *tshigombela*, *tshikona*, *malende*, *tshifase* and many more. Life Orientation has not focused much on the issues about instilling morals, values and discipline among the younger generations. Therefore, it is important for the Department of Education policy makers to include traditional indigenous knowledge practices in the curriculum. When traditional indigenous knowledge practices implemented as part of the curriculum, it would minimize problematic issues such as bullying, unruly, and ill-discipline in schools. Since traditional indigenous knowledge practices would be part of the curriculum, it would be easier for educators to guide and instil discipline among the young generation.

5.4. Limitations of the study

The main purpose of the study was to explore the preservation methods of *ndayo* by *Vhavenda* people. However, the study had certain limitations. The study would have gained more insight if it was not for the issue of time and financial constraints which limited the interactions with participants. The study was limited because, it was a taboo for elderly people to communicate the issue of traditional indigenous knowledge practices with younger researchers. It was a taboo to get permission and access to the content of *murundu/muḽa* as woman or even men who did not attend this initiation school. The study would have gained more insights about traditional indigenous knowledge practices if it would not be for the issue of secrecy and sensitivity because many of the bearers of traditional indigenous knowledge practices were from the older generation and find it difficult to communicate their personal experiences, their beliefs and their practices to the younger researchers. Some knowledge holders did not disclose their valuable information because they felt too confidential to share it with the younger researchers. Some felt too shy to share their information to younger researchers who may end up publicise information to young people before they attend these schools (*mashuvhuru*).

5.5. Conclusions of the research

5.5.1. The traditional indigenous knowledge practices of preserving *ndayo* by *Vhavenda* people

This goal was achieved because the results of this study indicated that the traditional holders of indigenous knowledge are living libraries. The study confirmed that traditional indigenous knowledge holders passed on their practices from one generation to the next through word of mouth. The results of this research showed that indigenous knowledge bearers used Indigenous stories, songs, dances, phrases, proverbs, Indigenous games, Indigenous learning, and initiation schools to disseminate traditional Indigenous knowledge practices. The holders of traditional indigenous knowledge gathered at night with their grandchildren to illustrate the practices of traditional indigenous knowledge. This study indicated that the entire process of traditional indigenous knowledge practices has a dual purpose, namely, to preserve family, community and culture as a symbol of collective immortality and permanence, and to provide a clear and guided medium for transition from one stage of life to another and sphere of responsibility to another.

Traditional Indigenous knowledge practices were established as hierarchies of community values and projected an ideal sequence of personal development. Community members continually emphasize values, especially respect, honesty, gratitude, caring, and collective responsibility. “However, changes in the socio-political sphere have resulted in a gap between some cultural values and those upheld in a democracy” (Khupe, 2014: 194). This study indicated that traditional indigenous knowledge practices are an essential norm for our elders. Traditional indigenous knowledge practices have been a very important way of life as the elders believed that it is their heritage, culture and way of life that is maintained, preserved, protected and promoted for the younger generation.

The study showed that traditional Indigenous knowledge practices are a mode of practice that represented a transformation from childhood to adulthood and was a way to prepare for masculinity, femininity, leadership and maturity associated with good character and responsibilities. The study showed that traditional indigenous knowledge practices were seen as the main key and backbone of life of the *Vhavenda* people. It has been indicated in this study that the facts, procedures and

protocols of Vhavenḁa culture life were outlined in the process of traditional indigenous knowledge practices. This study demonstrated that traditional indigenous knowledge practices existed and were practiced long before colonization took over. The disappearance of traditional indigenous knowledge practices meant the end of cultural identity. According to Khupe (2014: 194) “the younger generation is starting to question traditions that limit their sense of independence and choice, such as observing certain taboos and taking virginity tests”.

5.5.2 The benefits of preserving traditional indigenous knowledge practices ndayo by Vhavenḁa people

This goal was achieved because the elders showed that their lives were rooted intraditional indigenous knowledge practices. The elders believed that traditional indigenous knowledge practices were a treasure shared between the younger and older generation within their culture. This study showed that traditional indigenous knowledge practices encourage people to be respectful, to respect cultural mores, to respect the beliefs of others, to have good manners and to maintain good relationships between young and old within their culture. The study showed that traditional indigenous knowledge practices are relevant to producing a mature individual who is fit and disciplined for the community. The study showed that traditional indigenous knowledge practices unites bring families and communities.

This study demonstrated that traditional indigenous knowledge practices maintain order and stability within the family, communities and entire culture of the Vhavenḁa people. Elders encouraged secrecy and maintained confidentiality to minimize conflict and strife between family members and communities. Older people who engaged in traditional indigenous knowledge practices were living proofs and good ambassadors for exposing immorality within the community. Indigenous games taught the younger generation self-discipline and encouraged them to abstain from premarital sex. Indigenous games made it rare to find teenage pregnancies. The cultural dances and songs kept the younger generation away from drugs and alcohol as most of those songs had a special meaning and message conveyed to them.

Churches have played an important role in introducing the younger generation to lead pure, successful and prosperous lives. From an early age, children learned the word of God; depending on the age and level of nursery, basic phase, middle school,

senior phase and FET phase, sermons were given and delivered. Prayers uttered by pastors and parents have played an important role in forming and shaping a person's character. Through pictures, imitation and sight, children learned more freely. When learners imitate, it is like a game for them, but the learning happens at the same time. Storytelling nurtured, stimulated learners' interests, stimulated learners' imaginations, and provided a fundamental basis for human learning and teaching. He connected and brought people together.

5.5.3 The development strategies to preserve traditional indigenous knowledge practices by *Vhavenda* people

This objective was achieved because the results of the study showed that social media is the most popular, effective and influential form of communication on the perception of younger generations. Traditional indigenous knowledge practices have been preserved for the younger generation to trace their cultural identity. The *Vhavenda* people expressed a strong sense of identity, belonging and a sense of collective being. This study emphasized that traditional indigenous knowledge practices are a way of life; therefore, it was preserved, preserved, protected and promoted for the next generation. Traditional indigenous knowledge practices have been documented and archived using modern methods that enhance and pique the interest of the younger generation. While a number of issues arose from the results of this study, conservation is the most important part of the study. As a result of this study, *Vhavenda* people expressed their beliefs and desire for their children. The elders want their children to know about their past, traditional values and practical skills.

5.6. Recommendations

The recommendations of this study were discussed as guidelines, in accordance with the objectives of the study. The results of this study show that traditional indigenous knowledge practices are disappearing. Therefore, due to the dissemination of this study, it is natural that traditional practices of indigenous knowledge become a tradition and a custom that must be preserved, supported, protected and promoted. Lwoga et.al (2010: 176) state that “before much is lost, there is an urgent need to manage indigenous knowledge”. Traditional indigenous knowledge practices must be preserved to ensure that they must be continuously

practiced and implemented in order to form responsible people capable of taking responsibility for their communities. There is a need to preserve traditional indigenous knowledge practices as they are the cornerstone of Vhavenda society. The preservation of traditional indigenous knowledge practices would improve the sustainability of Vhavenda cultural practices. The younger generation would grow up understanding the importance and ways of their culture. As Hoppers (2009) argues, culture is not transmitted genetically, but must be learned. The study recommends documentation, using social media platforms, websites, libraries, policies and legislation, and education as the best tools for preserving traditional indigenous knowledge practices.

5.6.1. Recommendations for documentation

Documentation of traditional indigenous knowledge practices has been recommended in this study as it is essential and a way of life for the Vhavenda people. The results of this study strongly emphasize that indigenous Vhavenda knowledge practices, like any other scholarly knowledge, should be documented in libraries through pamphlets, local newspapers, magazines, articles, and books. Ngulube (2002: 95-96) points out that “documentation not only serves preservation, but also makes indigenous knowledge easily accessible to professionals in the development sector”. The study validated Ngulube's idea, as it is not only about protecting traditional practices of indigenous knowledge from extinction, but also about making traditional practices of indigenous knowledge accessible to future generations. The results of this study indicated that the future existence of Vhavenda indigenous knowledge practices depends on the preservation and documentation of this knowledge. This study recommended that the Vhavenda people document this knowledge in order to continue to address political, social, and historical issues within their culture. The results of this study indicated that documenting traditional Aboriginal knowledge practices would ensure that communities are not disadvantaged due to their unique beliefs.

5.6.2. Recommendation to the use of social media

In this study, results showed that the younger generation lives in a complex, social media-influenced media environment that is inseparable from them, making it the only world they know and understand more quickly and effectively. The results of this

study highlight that social media is the most important and widely used form of communication, influencing the younger generation as they understand communication better. In this study, programs such as TV, radio, internet, Facebook, Twitter, Instagram, YouTube, websites, blogs, vlogs, Google Docs, e-learning, WhatsApp and Snapchat were recommended for disseminate traditional practices of Vhavenda indigenous knowledge. The results showed that the younger generation spends most of their time on social media to learn, teach and interact with other people.

The study recommended social media as a powerful and relevant tool that can be used to influence the preservation of indigenous traditional knowledge practices as a whole. The study recommended social media to highlight storytelling, indigenous games, indigenous learning, e-learning, proverbs, phrases, songs, dances, folktales, pictures, initiation schools and the younger generation's church programs. When social media filmed traditional indigenous knowledge practices, they educated people about the importance of this knowledge. When people watch and hear these knowledge practices, they can change their minds, common misconceptions and myths, as well as people's prejudices against traditional indigenous knowledge practices. Research has shown that social media would make people aware of their roots, identity and culture which should lead them to put them into practice. The younger generation would connect with and be proud of their culture if they engaged with, debated, watched and listened to traditional indigenous knowledge practices on a daily basis. Members of the younger generation would be looking for more information on traditional indigenous knowledge practices, where needed they would need to find indigenous knowledge holders to engage them. This would also incentivize and encourage members of the younger generation to take more quizzes to clarify different aspects of ndayo. When the demand increases, curriculum designers, curriculum planners and curriculum implementers would be forced to reshape and restructure the curriculum to meet the demands and needs of the younger generation.

5.6.3. Recommendation related to Fourth Industrial Revolution

The study demonstrated that the fourth industrial revolution is one of the key phenomena for preserving traditional indigenous knowledge practices. The

dominance of traditional Indigenous knowledge practices over Western knowledge has crippled and disrupted the dissemination of Indigenous knowledge from older to younger generations. Africans see themselves as "primitive" or "inferior" to other peoples. The Fourth Industrial Revolution serves as an advocacy for traditional indigenous knowledge holders whose voices have been suppressed by colonialism. The study recommends that the elderly and the younger generation embrace the fourth industrial revolution. The study recommended that older people seize opportunities to apply traditional indigenous knowledge practices to various methods of technological devices.

Traditional indigenous knowledge materials should be readily available to present traditional indigenous knowledge practices in various technological devices. Traditional indigenous knowledge holders should always be prepared to take quizzes and various questionnaires on indigenous knowledge. Traditional indigenous knowledge holders need to familiarize themselves with different technological devices and different social media platforms to easily connect with the younger generation willing to learn traditional indigenous knowledge practices. This study has shown that the scope of dissemination of traditional indigenous knowledge practices to the younger generation is expanding.

5.6.4. Recommendation to libraries

The study showed that the fundamental roles of library is to plan, preserve, collect, codify, organize, store, document, protect, promote and disseminate the information. The findings of this study showed that libraries are the custodians of knowledge because it holds all information including maps, drawings, paintings, manuscripts, records, books and audio-visual items. The study recommended libraries as a significant tool for diffusing traditional indigenous knowledge practices. Libraries as the only hope for indigenous knowledge preservation can help to manage, protect, package and simplify traditional indigenous knowledge practices. In this study, emphasis has been made for the development of strategies through the use of internet which is in partnership with the libraries where a website is created specifically for indigenous knowledge teachings. Strategies can include information societies, provided through the digital skills for recording relevant oral knowledge that might be lost. When libraries provide support, training and data collection for the

development, they can open software which allows anyone to register and submit their information about traditional indigenous knowledge practices.

People should be encouraged to use the strategies and write short essays about traditional indigenous knowledge practices and elaborating more on it and also through short video clips showcasing the different traditional indigenous knowledge practices methods that were used back then and how they still apply even in today's community structure, also through short letters that can be passed in WhatsApp's groups detailing on indigenous knowledge and its importance. It was reiterated in this study that digitalisation is the fastest and most reliable tool that can be used to preserve traditional indigenous knowledge practices by *Vhavenda* people. The study recommended libraries and all essential tools that can be used to manage, preserve, document, store, protect and promote traditional indigenous knowledge practices. Sithole (2007: 119) indicated that the library has, "emancipated itself from the traditional resources of the written and printed word to incorporate other communication media and digital technologies".

5.6.5. Recommendation for policies and legislations

The study recommended that policy makers to consider Indigenous traditional knowledge practices when revising and restructuring policies. If policies incorporate traditional indigenous knowledge practices, discipline in schools should not be a problem. Incorporating traditional indigenous knowledge practices would help the younger generation exercise their rights responsibly. In this study, results showed that traditional indigenous knowledge holders did not understand South African ICS policies and SA-IP laws that are used to manage and preserve indigenous knowledge. Libraries are important intermediaries that can transmit indigenous knowledge to the community. The study recommended policies and laws that recognize, affirm, develop, promote, preserve and enhance traditional indigenous knowledge practices. The study highlighted the importance of policies and laws, as these policies should make people aware of their indigenous knowledge system and their traditional indigenous knowledge practices. Agenda 21 of the Convention on Biological Diversity (1992) agreed that "international agreements, laws and national policies are important frameworks and tools with which libraries should be equipped to provide documentation of indigenous knowledge" (Sithole, 2007: 118). Policies

such as ICS Policy (2004), ICS Bill (2014), SA-IP Laws (2008, 2013), PAA (2005), NPRSTI (2014) and RSTA (2004).

5.6.6. Recommendation to education system

It is clear from this study that it would be very useful for the Ministry of Basic Education to be actively involved in the restructuring and reintroduction of formal indigenous traditional knowledge practices in the classroom. The study pointed out the Ministry of Basic Education should revise and reform educational content in the areas of curriculum, textbooks, methods and child development to fill the existing content gap in the current education system. The study showed that life-oriented subject needs to be reviewed, restructured, re-implemented and allocated time, just like all other subjects. The study showed that life orientation should not be considered a minor subject; it must be weighed like all the other subjects. It has been emphasized in this research that the prescriptive nature of current CAPS documents needs to be reviewed and restructured to accommodate the inclusiveness of traditional Indigenous knowledge practices in teaching and content learning.

The study showed that the Department of Basic Education should consider the inclusiveness of traditional indigenous knowledge practices to avoid taking a hit on the relevance, human rights, social justice and democracy in the education system. The study emphasized that the Department of Elementary Education should focus the professional development of educators during their service on teachers' competencies for this type of teaching and learning. The results of this study indicated that the Ministry of Basic Education should implement more sensitization and cultural campaigns in schools so that children know fully how things are going. The study showed that the content of teaching and learning traditional indigenous knowledge practices can interact and intertwine with children's social lives. The study recommends that activities for learners, such as homework and fieldwork should include Ndayo content so that seniors and parents have platforms where they can interpret Ndayo practices.

On Heritage Day in September, parents, grandparents, traditionalists and other stakeholders should be invited to the school so that learners can learn more from these stakeholders. The study recommended that the Ministry of Basic Education should review and reform the curriculum to create a platform for integrating

traditional indigenous knowledge practices into the teaching and learning environment. The Ministry of Tourism Industry, Arts and Culture has various places, places full of African cuisine, African souvenir shops in townships and rural areas, which are still very authentic and culturally sophisticated. The Ministry of Tourism Industry, Arts and Culture should draw attention to the authenticity of traditional indigenous knowledge practices by using tourism to attract people to visit these places, especially during times of celebrations or ceremonies. The study indicated that this could be used as an opportunity to educate people about traditional indigenous knowledge practices. In this study, emphasis was placed on the fact that indigenous dances, stories, songs and games could also be used to educate people who visit these places. The study showed that tourists who visit these cultural places should really feel and experience the atmosphere of traditional indigenous knowledge practices.

The study showed that tourism would make use of museums to showcase indigenous traditional clothing, dance instruments and singing instruments and actually tell the story of the traditions, culture, lifestyle and education that were done in the past. The history portrayed everywhere in museums and art galleries should actually be related to the art of living. The Department of Arts and Culture (2009: 31) has indicated that "archiving and documenting Indigenous knowledge can help to safely safeguard cultural practices and heritage for generations to come, which can be seen as a positive part of their identity and promotion of social cohesion". The Department of Arts and Culture, as custodian of cultural assets, should develop strategies that recognize the preservation of traditional indigenous knowledge practices.

The arts and culture department should propose themes for cultural competitions in schools where they should showcase everything from cultural poems, storytelling, songs, dances and games that their ancestors took part in that have significance and schools compete with other schools. School cultural competitions should be compulsory. This should open up a space for students to explore more about their culture and cultural beliefs and can thus serve as a tool for transmitting and preserving traditional indigenous knowledge practices within the educational arena as well. The study recommends collaboration between the Department of

Elementary Education, the Department of Tourism and the Department of Arts and Culture to preserve indigenous knowledge practices.

5.6.7. Recommendation to family

Findings showed that family is the most important institution in passing traditional indigenous knowledge practices from one generation to another. Family members, parents, grandparents, aunts and uncles are responsible for teaching children about *ndayo* because they are the ones who interact with the children on day to day basis. Parents played an important role on instilling norms and values to their children. Parents would create a platforms to teach their children the knowledge that they have gathered during their time. Family members should demonstrate *ndayo* in a form of play or fun so that children would not get bored, things like *u losha*, *u lumelisa*, greetings to parents and other elderly people when visiting the place. They have to teach them *u swiela*, sweeping the floor, and cleaning the dishes after each meal.

The study recommended that parents and grandparents should role model these activities and request children to imitate them. At first children would enjoy doing that, and by so doing, children were learning and copying these behaviours. After teaching them the household chores before they sleep grandparents entertained children with storytelling, proverbs, idioms and explain the important of not complying. Children would grow up having these stories in mind and by so doing *ndayo* would be conveyed to children. Traditional indigenous stories were fascinating and have guidance at the same time. If parents instil traditional indigenous knowledge values, mores, culture and way of life to their children and our children finds this important information at school, it would be very hard for them to look down upon that knowledge. The study recommended that parents should also encourage children to participate during children's radio programs when they broadcast programs like Denzhe, Nal'ibali world read, where children would read and listen to the storytelling and explain what they have learnt from the story.

5.6.8. Recommendation to churches

Findings of the study showed that missionaries regarded traditional indigenous knowledge practices as barbaric, unchristian and unholy. Studies showed that some

churches have programmes on *ndayo*. It is the responsibility of the church to have guidance programs starting from Sunday school children to youth groups. The church should adopt modern strategies of practicing *ndayo* in order to stimulate interest among younger generation. The study recommended that elderly woman should mould and shape younger generation to be responsible adults in future using *ndayo* from biblical point of views. Church leaders should have programmes for younger generation gatherings such as, seminars', talk show, gala dinner, and youth camps to guide them about facts of life.

The programme should be at least once per term, if possible, the gatherings should include members of the younger generation from other churches. The church leaders should facilitate the programme in the form of motivational talks about facts of life but based on what the bible says about these different topics. This would also stimulate younger generation's interests to open up and come up with many challenging topics that would assists them in life. The younger generation often engage in risky and dangerous behaviour due to peer pressure. However, such behaviour could be mitigated through motivational talks, those who benefited from the program would become ambassadors, sharing their valuable lessons and experiences with others, serving as excellent role models.

5.6.9. Recommendation to community

The community process of guiding younger generation should be encouraged at different levels, platforms and organisations. The study recommended that, there should be collaboration among community leaders, civic leaders and traditional leaders to teach norms and values to the younger generation during their gatherings. The study recommended that community leaders should design programmes wherein they invite different stakeholders to teach younger generation the importance and benefits of traditional indigenous knowledge practices. Since the government was putting more emphasis on traditional initiation school for boys (Mula), the community should also put more emphasis on other traditional indigenous knowledge practices that played a role in preserving *ndayo*. The study recommended that all these stakeholders should address sensitive topics that would draw the attention of younger generation and elaborate on these topics and show them the consequences thereafter. These topics should also help younger generation

to think back to traditional indigenous knowledge proverbs that says *u sa pfa hu tunya mavhudzi, wa sa li pfa u vhudzwani u do li pfela vhulaloni*. This means that for every action, there were always a reaction and consequences that follows, as an individual if you do not listen when you were advised you would experience consequences.

5.6.10. Recommendations for further research

This study recommended that future research on the preservation of traditional indigenous knowledge practices should focus on other contexts. Future research should focus on the preservation of traditional indigenous knowledge practices in other cultures. Another avenue for future research would be the preservation of traditional indigenous knowledge practices through training, and employing traditionalists in learning area like Tshivenda, Life Skills, or LO. This study recommended that future research on the preservation of traditional indigenous knowledge practices in specific initiation school or specific aspects like storytelling.

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APPENDIX A

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

Mrs MJ Sibadela

Student No:

15012889

PROJECT TITLE: Exploring the preservation
methods of Ndayo by Vhavenda people.

PROJECT NO: SHSS/17/AS/05/0803

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr PE Matshidze	University of Venda	Promoter
Prof VO Nelshandama	University of Venda	Co-Promoter
Prof EK Klu	University of Venda	Co-Promoter
Mrs MJ Sibadela	University of Venda	Investigator – Student

ISSUED BY:

UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: March 2017

Decision by Ethical Clearance Committee Granted

Signature of Chairperson of the Committee:

Name of the Chairperson of the Committee: Prof. G.E. Ekosse



University of Venda

PRIVATE BAG X5050, THOHOYANDOU, 09502, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 8504/8313 FAX (015) 962 9060

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APPENDIX B: INFORMED CONSENT

CONSENT TO PARTICIPATE IN INTERVIEW

Exploring the Preservation methods of *ndayo* by *Vhavenda* people

The University of Venda, Department of African Studies, School of human and Social Sciences

Dear prospective participant

I, **Sibadela Mukhethoni Joyce**, am carrying out a study on the preservation methods of *ndayo* by *Vhavenda* people with Dr Matshidze, Prof. Netshandama and Prof. Klu as my supervisors. You are kindly invited to participate in this study which is meant for academic purposes. We also want to know more about *Vhavenda* indigenous strategies because this knowledge might help us to learn how to better control and preserve knowledge in our community.

WHAT IS THE PURPOSE OF THIS STUDY?

The purpose of this qualitative study is to explore the preservation methods of *ndayo* by *Vhavenda* people.

WHY AM I BEING INVITED TO PARTICIPATE

You are selected as a possible participant in this study because you are regarded as one of the custodians of this knowledge. Fellow colleagues in the province who worked with you previously referred us to you. We will be interviewing approximately 25 participants across few regions in the province.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY

This is a semi-structured interview where open-ended questions will be asked to you to try and answer our research questions. Your experience and knowledge as the targeted participant in this study will help answer research questions for this study. We would like to record this interview so that we can use it for reference while proceeding with this study. We will not record this interview without your permission. If you do not grant permission for this conversation to be recorded, you have the right to revoke recording permission and /or end the interview at any time. The interview will take around 45 minutes of your time. You may be asked to answer questions contained in

a questionnaire as well as face to face discussions, individual or group interviews. During the interview, the interviewer will sit down with you in a comfortable and conducive places. If it is better for you the interview can take place in your home. We may come back for follow-up interview within three months if the exercise is not complete.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING TO PARTICIPATE?

Your participation in this research is entirely voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. If you choose not to participate we will not see you differently or label you somehow. If you have questions later, you can ask them freely so without being intimidated.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There is no potential harm or discomfort foreseen for participating in this study. The researchers will try their best to ensure that no potential harm or risk that may occur to the study participants. However, you do not have to answer any question or take part in the discussion/interview/survey if you feel uncomfortable or if you feel the question (s) are too personal or confidential or if talking about them may put you at risk.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Explain the extent, if necessary, to which confidentiality of information will be maintained.

You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research project. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your answer may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records. We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY DATA?

The researcher will store hard copies of your answers in a lock filling cabinet, and electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Hard copies will then be shredded and electronic copies will be permanently deleted from the hard drive of the computer through the use of relevant software programme.

WHAT BENEFITS DO I GET AS PARTICIPANT

There will be no direct benefit to you as participant, but your participation is likely to help us to find out more about how *ndayo* can be preserved for future generations. You will not be provided any incentive to take part in the research project.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the University of Venda. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

The knowledge that we get from this research will be shared with you not any other person outside the research team and nothing will be attributed to you by name. Each participant will receive a summary of the research findings/results, and after the announcement we will publish it to other interested people who may learn traditional indigenous knowledge practices *ndayo* from this research project.

Thank you for taking time to read this information sheet and for participating in this research project.

CONSENT FORM TO PARTICIPATE IN THIS STUDY

I, (Participant Name),
confirm that the person asking my consent to take part in this research has told me
about the nature, procedure, potential benefits and anticipated inconvenience of
participation.

I have read (or had explained to me) and understood the study as explained in the
information sheet.

I had a chance to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any
time without penalty.

I am aware that the findings/results of this study will be processed into research report,
journal publications and/or conference proceedings, but that my participation will be
kept confidential unless otherwise specified.

I agree to the recording of the interview.

I have received a signed copy of the informed consent agreement.

Participant Surname & names (Please print)

Participant Signature.....Date.....

Researcher's Surname & names..... (Please print)

Researcher's Signature.....Date.....

APPENDIX C: RESEARCH QUESTIONS

INTERVIEW QUESTIONS

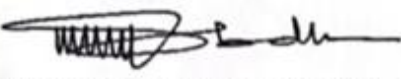
Exploring the preservation methods of *ndayo* by *Vhavenda* people

You are welcome to this interview. Therefore, feel free to ask any questions concerning the words and other things related thereto so that you answer questions properly. As you will remember from the consent form, all things stipulated in there applies to this interview. Therefore, I encourage you to give your independent views.

1. What do you understand by the term traditional indigenous knowledge practices?
2. What are the *Vhavenda* traditional indigenous knowledge practices?
3. How were these traditional indigenous knowledge preserved?
4. Explain in detail these preservation methods used in *Vhavenda* people?
5. Do you think these *Vhavenda* traditional indigenous knowledge practices are still existing?
6. If, yes/no what do you think are the causes?
7. Are there any other means that you think can be done traditionally to preserve the *Vhavenda* indigenous knowledge in the 21st century?
8. What are the benefits of preserving traditional indigenous knowledge practices?
9. Do you think the schools curricular can integrate the *Vhavenda* traditional indigenous knowledge practices?
10. What are the government's efforts to indigenize the curricular?
11. Can the *Vhavenda* traditional indigenous knowledge be integrated with the Western Knowledge?
12. If yes/no what are the implications to be faced?
13. If the above answer is yes, what are the development strategies to integrate traditional indigenous knowledge practices with Western Knowledge in institutions?

Thank you for your participation in this research project!!!!!!!!!!!!!!

Thank you

Signed (Student): 

Sibadela Mukhethoni Joyce

mawokomayi@gmail.com
0725948848

Date: 07/08/2023

RE: TO WHOM IT MAY CONCERN

This letter serves to confirm that I edited a dissertation titled:

**EXPLORING THE PRESERVATION METHODS OF *NDAYO*
BY *VHAVENDA* PEOPLE**

BY

MUKHETHONI JOYCE SIBADELA

STUDENT NUMBER: 15012889

Please do not hesitate to contact me for any queries.

Yours sincerely,



Dr B. Moffat

Member, Professional Editors' Guild

Ph.D, Communication, Master of Social science, Communication, (University of Fort Hare)
B.A. Honours, Literature & Media Studies (University of Venda), B.A. Media Studies (University of Venda).