

https://dspace.org/

Marketability of traditional medicine in South Africa

Thema, Kgaladi

2024
University of the Witwatersrand, Johannesburg
https://hdl.handle.net/10539/46022
Thema, Kgaladi . (2024). Marketability of traditional medicine in South Africa [Master`s dissertation, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/46022

Downloaded from a DSpace repository. https://dspace.org/

Marketability of traditional medicine in South Africa

Name and Surname: Kgaladi Thema

Student number: 2439746

Supervisor: Dr Tsele Moloi

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

Johannesburg, 2024

DECLARATION

I, **Kgaladi Thema**, declare that the research report "**marketability of traditional medicine in South Africa**" is my own work. It has not been submitted for examination or any degree in any other university. It is submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration. I further declare that I have properly acknowledged all sources of information used in this research.

Signature: _____

Signed at _____

On the _____ day of _____2024

ACKNOWLEDGEMENTS

I thank God, ancient of days, the I am that I am, for his love and his grace, with whom all things are possible. I extend my deepest gratitude to my son, Kgosi, for being the source of my greatest joy. Thank you for making me a mom. I am forever grateful for the love, laughter, and boundless joy you bring into my world. I love you to the moon and back.

I would like to express my sincere appreciation to my supervisor, Dr. Tsele Moloi, for the invaluable guidance and unwavering support throughout this academic journey.

This achievement is a result of the collective support and inspiration I've received from my loved ones, friends, and family. Each of you has played a significant role in this journey, and I am deeply thankful for your contributions. With heartfelt gratitude.

ABSTRACT

The research aimed to explore the marketability of traditional medicine in South Africa, adopting a qualitative research approach. The research engaged with 23 participants including consumers of traditional medicine, traditional healers, traditional medicine traders, health practitioners and regulators in South Africa.

This study reveals that traditional medicine in South Africa possesses untapped market potential. The findings suggest that strategic marketing approaches addressing gaps in advertising and accessibility could enhance marketability. Diversifying techniques, leveraging digital platforms, and exploring alternative value chains could contribute to growth. The findings from this research provide valuable insights for policymakers, healthcare professionals, and traditional practitioners to foster an integrated and informed approach to healthcare delivery in a culturally diverse context.

Future research should prioritize conducting studies on a larger scale to ensure broader applicability and increased accuracy in representing the diverse population.

Key words: Entrepreneurship, African traditional medicine, marketing strategies, consumer preferences, South Africa.

CHAPTER 1: INTRODUCTION 1

1.1 Introduction 1

1.2 Background of the study 1

1.3 Purpose of the study 3

1.4 The aim 3

1.5 Research problem 3

1.6 Research Question 4

1.6.1 Central research question 4

1.6.2 Sub questions 5

1.7 Objectives 5

1.7.1 Central Objective 5

1.7.2 Sub-objectives 5

1.8 Justification or rationale of the study 5

1.9 Delimitation of the study 6

1.10 Operational definitions 7

1.10.1 Traditional medicine 7

1.10.2 Marketability 7

1.10.3 Commercialization 7

1.10.4 Traditional healer 7

1.10.5 Herbal medicine 8

CHAPTER 2: LITERATURE REVIEW 9

2.1 Introduction 9

2.2 The concept of traditional medicine 10

2.3 Challenges and benefits of traditional medicine and its practice 11

2.4 Market opportunities of traditional medicine in South Africa and possibilities 14

2.5 Practice implications and solutions 18

2.5.1 Research constraints 18

2.5.2 Regulation and Quality control 18

2.5.3 Co-productive knowledge and practices 19

2.5.4 Commercialization 20

2.6 Evolution of traditional medicine in South Africa 21

2.6.1 Advantages and disadvantages of traditional medicine 23

2.7 Literature review Conclusion 24
2.8 Research Framework 25
2.8.1 Theoretical framework 26
2.9 Conclusion 30
CHAPTER 3: METHODOLOGY 31
3.1 Introduction 31
3.2 Research Methodology 31
3.3 Paradigm - postpositivism and interpretivism paradigm 31
3.3.1 Research paradigm 31
3.4 Research design 32
3.4.1 Population and Sample 32
3.4.2 Sample and sampling method 32
3.5 Data collection 33
3.6 The Research instrument 33
3.6.1 Interviews 33
3.7 Data analysis strategies and interpretation 33
3.7.1 Quality Assurance 34
3.7.2 Validity and Trustworthiness 34
3.8 Ethical considerations 34
CHAPTER 4: PRESENTATION OF FINDINGS 35
4.1 Introduction 35
4.2 Overview of Data Collection Methods 35
4.3 Thematic Analysis 36
4.4 Discussion emergent themes 36
CHAPTER 5: DISCUSSIONS 41
5.1 Introduction 41
5.2 Discussions 41
5.3 Conclusion 45
CHAPTER 6: RECCOMENDATION AND CONCLUSIONS 46
6.1 Introduction 46
6.2 Recommendations 46
6.3 Limitations of the study 46

6.4 Overall implications 46
6.5 Future research 47
6.6 Conclusion 47
7 References 48

CHAPTER 1: INTRODUCTION

1.1 Introduction

The marketability of traditional medicine in South Africa is the subject of interest for this study. The purpose of the study is to determine whether traditional medicines and medicinal plants can be sold or marketed, and whether they appeal to potential customers.

There is a sizable and expanding market for traditional medicines in South Africa. Traditional medicine is used by approximately 27 million people, boosting the national economy through the trade of these drugs to an estimated R2.9 billion (Manderi, Ntuli, Diederichs & Mavundla, 2013).

Even before the development of conventional medicine, indigenous populations used African traditional medicine (ATM) to treat ailments. A significant proportion of the population still relies on ATM for health care. South Africa, a member of the World Health Organization (WHO), has been directed to institutionalize African traditional medicine (Siband, 2018).

1.2 Background of the study

Prior to the development of orthodox medicine, African populations were using African traditional medicine (ATM) for the treatment of ailments. African traditional medicine still contributes to many people's health needs. Herbal remedies are a synthesis of traditional techniques from various indigenous medical systems and numerous therapeutic experiences from earlier generations. It offers helpful instructions on how to choose, prepare, and use herbal remedies to treat, manage, and control a variety of ailments (Khan & Ahmad, 2019). According to WHO (2013), plant-based medications have been used successfully to treat various conditions such as Acquired Immunodeficiency Syndrome (AIDS), cancer, diabetes, jaundice, hypertension, and tuberculosis. Several plant-based medicines are still being used in ancient civilizations like Egypt, South Africa, China, and India to cure these illnesses.

African traditional medicine (ATM) would be the Traditional Medicine (TM) native to the various African cultures as a result. While traditional medicine has been used by humanity to treat numerous diseases before the development of orthodox medicine, it continues to meet most of the world's population's healthcare needs (Mothibe & Sibanda, 2019).

WHO (2013) reports that there have been rising trends in the use of traditional medicine and complementary medicines. The terms complementary medicine (CM) and complementary alternative medicine (CAM) refer to a broad range of medical procedures that are not part of a nation's customary medical practices or its dominant system of conventional medicine. In some nations, the phrases are used interchangeably with TM. The names natural medicine, non-conventional medicine, and holistic medicine are also occasionally used to refer to various types of medical procedures. Herbal medications, which can be made from herbs, herbal ingredients, herbal preparations, or completed herbal products, are considered traditional medicines (Gurib-Fakim, 2006).

Ozioma and Chinwe (2019) highlight that every traditional medicine that is not indigenous to South Africa is referred to as complementary, alternative, or non-conventional medicine. This is similar to other nations where allopathic medicine predominates or where TM has not been integrated into the national health care system. Arji, Safdari, Rezaeizadeh, Abbassian, Mokhtaran and Ayati (2019) establish that despite the poor documentation of the medicine systems, ATM is considered one of the oldest and most diverse of all medical systems. African traditional healing is seen as holistic in that it addresses both the body and the mind and is intertwined with cultural rituals and religious beliefs. WHO has taken the lead in TM issues, gathering data on its practices around the world and offering guidance to advance its recognition, acceptability, and integration into member nations' health systems.

The purpose of this research is to investigate the marketability of TM in South Africa. It aims to fill the gap in the usage of TM to cure different illnesses. This research asks questions related to the origin of traditional medicine, what it can cure, side effects and profit from selling traditional medicines. The results of the study are important to illuminate the profit margins from selling traditional medicine and the target market.

It appears that the value chains for medicinal herbs and products made from them are diverse. Surprisingly, not many studies have examined the value chain despite the scale of medicinal herbs and herbal products trade (Booker, Johnston, & Heinrich, 2012) .

Marketing channels significantly affect the performance of herbal business. The performance of the herbal business is also affected by competitive advantage and logistics. Finally, similar outcomes were discovered in the case of innovative management, demonstrating the favourable impact on the performance of the herbal business (Kerdpitak, 2022) .

The wholesome baobab products play a significant role in local economies throughout dry Africa and have potential possibilities as lifestyle food products in Europe and the United States of America. Baobab already acquired access to foreign markets because of processing and packaging (Leakey, Avana, & Awazi, 2021).

1.3 Purpose of the study

The purpose of the study is to explore the marketability of traditional medicine in South Africa.

1.4 The aim

The aim of the research is to explore marketability of traditional medicines in South Africa.

1.5 Research problem

Indigenous knowledge systems (IKS) on traditional medicine have not been fully commercialized (Kugedera, 2021). While herbalists have the knowledge and the product, its market reach is insufficient due to informality. There are misconceptions that herbalism is rooted in spirituality. As such, the rural economy is not growing and is sitting on IKS potential. Traditional medicine is not well packaged with clear dosage instructions in a way that is appealing to consumers.

Some of the studies conducted have looked mostly at toxicity of plant materials (van Wyk, 2020). Others observe the usage of traditional medicine without investigating the value chains and market attractiveness. Insights regarding consumer preferences and ways to make traditional medicine appealing to consumers are still missing. The existing gap in literature is understanding the available marketing techniques to make traditional medicine more appealing to consumers and how to form part of existing formal value chains.

Previous research has identified several research gaps, which are summarized in the literature review section (Mdhluli, 2022). These consumers are from a diverse range of age categories, education levels, religions and occupations. The diversity in consumers show that consumption of traditional medicine is a common practice across most sectors of the Black African population, and that traditional medicine use is not confined to poor, rural and uneducated users. Furthermore, the survey conducted by Rasethe, Semenya and Maroyi (2019) shows that traditional medicine was often more expensive compared to local government clinics, dispelling the myth that traditional medicine is a cheaper alternative. The average frequency of traditional medicine use per consumer in South Africa is 4.8 times per year, with an average mass of 157g plant material per treatment.

This research aims to better understand and integrate TM or CAM into national health care systems, where appropriate, by developing and implementing national TM/CAM policies and programmes. It also aims to promote the safety, efficacy and quality of TM/CAM by expanding the knowledge base of these remedies and providing guidance on regulatory and quality assurance standards. The research is intended to increase the availability and affordability of TM/CAM where appropriate, focusing on poorer populations and promote therapeutically sound use of appropriate TM/CAM by providers and consumers within South Africa (Asfaw, Esho, Bachheti, Bachheti, Pandey, & Husen, 2022).

There is a need for marketing interventions on traditional medicine in South Africa. Traditional medicine tends to be in non-attractive branding, and unappealing to consumers. In addition, the challenge is not displaying the dosage information on the packaging. In South Africa, traditional medicine entrepreneurs can thrive if they establish value chains for marketing, share ideas and sell both in formal and informal markets.

1.6 Research Question

1.6.1 Central research question

- How can traditional medicine be marketed in South Africa?

1.6.2 Sub questions

- What are the current marketing techniques suitable for traditional medicine?
- How can the identified marketing techniques be made effective?
- What are the challenges faced by traditional medicine?

1.7 Objectives

1.7.1 Central Objective

- To explore the marketability of traditional medicine in South Africa.

1.7.2 Sub-objectives

- To explore current marketing techniques suitable for traditional medicines in the South African market.
- To explore the effectiveness of the identified techniques in attracting new customers and increasing market share.
- To explore the challenges faced in marketing traditional medicine in South Africa.

1.8 Justification or rationale of the study

Providing answers to these research questions would help diverse stakeholders understand how to build the knowledge in relation to traditional medicine. TM quality assurance, safety, proper use, and effectiveness can be improved by regulating products, practices, and practitioners through education and training, skill development, services, and therapies. Promote universal health coverage by integrating TM services into health service delivery and self-health care, capitalizing on their potential contribution to improving health services and health outcomes, and ensuring users can make informed self-health care decisions (Nkwadi, 2021). To aid practitioners of traditional medicine and business owners make informed choices about their markets, how to make their products appealing, and improve on their marketing strategies. A significant herbal sector with more than 50 to 100 private entrepreneurs operating in the informal market has emerged in South Africa due to the manufacturing of traditional medicine. In addition, this industry generates many jobs. Traditional medicine products are largely promoted online, on television and radio, in newspapers, and through brochures and posters (Ndhlala, Stafford, & Finnie, 2011).

Depending on the ailment, informal traditional medicine vendors and traditional healers will prescribe specific herbs along with detailed instructions on how to prepare and take them. However, neither the preparation procedures nor the dosages are recorded on the packaging. In order to increase profit and appeal to clients, it is important to brand this industry and make marketing simple for traditional healers, practitioners, and business owners.

The current topics of interest in the field of traditional medicine include:

- A remedy traditional medicine such as using Artemisia Afra for COVID-19.
- The capacity of traditional medicine to treat emerging illnesses.
- The use of complementary medicine to treat illness.
- Various health authorities accept most herbal remedies as effective flu treatments.

The particular aspect of the field examined in this research is about the traditional medicine's viability as a market, variety of marketing methods and tactics available to promote conventional medicine to consumers and traditional medicine branding to appeal to a new customer.

This research advances traditional medicine and opens doors for traditional healers to add value, package, label, brand, advertise, and attract new clients by employing various approaches and marketing strategies.

1.9 Delimitation of the study

This study focuses on how traditional medicine will be profitable to the economy and be marketable to various healthcare institutions. This research fills a gap related to the field of healthcare and traditional medicine together with the commercialisation of those traditional medicines. The study highlights the various ways investment in Traditional Medicine can affect policy and practice.

- Data collecting errors are quite frequent because of the complexity of the perspective of the expanding literature on business performance determinants.
- The study was only conducted in South Africa, a developing country; therefore, it was not possible to extend the research findings to developed countries.

- To strengthen the generalizability of the study, future studies in this area might focus on established economies.
- The study will only focus on herbalism.

1.10 Operational definitions

1.10.1 Traditional medicine

Traditional medicine (TM) is described by the WHO (2013) as the body of knowledge, skills, and practices based on the theories, beliefs, and experiences that are indigenous to different cultures, whether explicable or not, that are used to maintain health as well as to prevent, diagnose, improve, or treat physical and mental illnesses. Traditional medicine is a term used to describe a range of medical procedures, methods, theories, and practices that are used to treat, diagnose, prevent, or otherwise promote health. It includes the use of exercise, spiritual practices, manual therapies, and medicines derived from plants, animals, and minerals.

1.10.2 Marketability

According to Sinyolo, Mudhara and Wale (2019), a product's marketability determines whether it will appeal to customers and derive profit. Public relations, advertising, trade exhibits, and the creation of marketing collateral are all examples of marketing communications. Other tasks like product quality control and documentation are also included.

1.10.3 Commercialization

The process of launching new goods or services on the market is known as commercialization (Lahtinen, 2020). Production, distribution, marketing, sales, customer support, and other crucial tasks essential to the commercial success of the new good or service are included in the broader act of commercialization. Commercialization typically takes place once a small business has expanded and scaled its operations to the point where it can successfully target a larger market (Sinyolo et al., 2019).

1.10.4 Traditional healer

Traditional healers are an understudied group of healthcare professionals who work in the community as autonomous, largely unregulated practitioners (Ndubisi & Kanu, 2021). A traditional healer is someone who lacks formal medical training but is regarded, by the local community, as competent to provide healthcare. They mainly use animal, plant, minerals and other techniques based on social, cultural, and religious background as well as the knowledge, attitudes,

and beliefs that are prevalent in the community regarding physical, mental, and social well-being as well as the causes of disease and disabilities (Nkwadi, 2021).

1.10.5 Herbal medicine

Herbal medicine is part of and sometimes synonymous with African traditional medicine. It is the oldest and still the most widely used system of medicine in the world today. It is used in all societies and is common to all cultures. Herbal medicines, also called botanical medicines, vegetable medicines, or phytomedicines, refers to herbs, herbal materials, herbal preparations, and finished herbal products that contain whole plants, parts of plants, or other plant materials (WHO, 2013). This includes leaves, bark, berries, flowers, and roots, and/or their extracts as active ingredients intended for human therapeutic use or for other benefits in humans and sometimes animals (Phua, Zosel & Heard, 2009).

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

> "*Everything that lives and moves will be your food; just as I gave you green plants, I now give you all things" (Genesis 9:3).*

"Every society has various systems in place to maintain and restore well-being" (Van Rooyen, et al., 2015, p. 1). The South African population, like in many other African countries, has survived the extremes of times; without tablets and syrups dispatched through pharmacy counters of clinics and hospitals; remaining healthy and strong (Van Rooyen, Pretorius, Tembani, & Ham, 2015). This study reviews the marketability of traditional medicines in South Africa.

Journal articles and reviews has been downloaded from various electronic platforms, to explore different dimensions of this subject as articulated below. For academic research to collect current knowledge and assess the condition of a field, literature reviews are crucial. However, scholars in business, management, and related fields still rely on superficial, narrative evaluations that do not conduct a thorough literature analysis. The methodological stages for performing literature reviews in a repeatable and scientific way are described in Adams, Smart and Huff 's (2017) article.

Traditional medicine has a long history. It is the sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness (Siband, 2018) Traditional medicines that have been shown to be of high quality, safety, and effectiveness help to achieve the goal of ensuring that everyone has access to healthcare. Herbal remedies, conventional therapies, and conventional doctors are the primary and, in some cases, the only sources of healthcare for millions of people (Mothibe & Sibanda, 2019).

This type of care is accessible, nearby, and reasonably priced. Many people trust it and embrace it as part of their culture (Mothibe & Sibanda, 2019). In a time of skyrocketing health care expenses and almost universal austerity, the affordability of the majority of traditional medicines makes them more alluring. In addition, traditional medicine stands out as a means of addressing the unrelenting increase in chronic non-communicable diseases. Notwithstanding the motivations for people's interest in T&CM, there is no doubt that interest has increased and will probably continue to increase globally (Ozioma & Chinwe, 2019).

2.2 The concept of traditional medicine

The naming and labelling of herbs as traditional medicine is out of context. Some scholars refer to herbs as traditional medicine. However, there is nothing traditional about medicine since it is not distinctive as to whose tradition it may be (Williams et al., 2011; Van Rooyen et al., 2015; Williams & Whiting, 2016; Street et al., 2018; Maharaj et al., 2019; Xiong et al., 2021; Cock et al., 2022; Cock et al., 2023). Medicine has no tradition, and therefore should not be associated with any particular group of people. It is therefore important that herbs or their contextualisation be decolonised from defamatory stigmatization to create a platform for them to emanate and evolve.

De Sousa Santos (2007, p.1 – 2) notes that "modern Western thinking is an abyssal thinking. It consists of a system of visible and invisible distinctions, the invisible ones being the foundation of the visible ones. The invisible distinctions are established through radical lines that divide social reality into two realms, the realm of "this side of the line" and the realm of "the other side of the line". The division is such that "the other side of the line" vanishes as reality, becomes non-existent, and is indeed produced as non-existent". This divide in knowledge undermines and suppresses their possibilities to emerge and thrive in a helpful manner to society.

Africans are encouraged to emancipate themselves from mental enslavement that stigmatises them. This means that they have to stop believing that everything about them is inferior, including their traditional medicine (Odeh & Otitolaiye, 2022, p. 51). The strong belief in a system creates a stronger possibility for such a system to evolve. Nevertheless, reluctance of the system may be caused by insufficiency of verified information regarding decolonisation of public health, which

includes traditional medicine practices (Narasimhan & Chandanabhumma, 2021, p. 316). Engagements on this should be intensified including further research on existing theoretical discrepancies that may exacerbate distrust on the discourse of traditional medicine. Existing research on the decoloniality of medicine is not sufficient.

Odeh and Otitolaiye (2022) argue that Africa needs to be decolonised from the western perspectives. They show that limited understanding of the African traditional systems manifests in traditional medicine not being used, as was the case during the COVID-19 pandemic. Even though a particular element of truth may exist in this argument, it is however difficult to consider the significance of a medicine that has not yet been tried and tested, with potentially irreversible effects.

However, the study by Odeh and Otitolaiye (2022) consists of insufficient research to solidify their arguments. This is because the issues raised about the colonisation of traditional medicine are dismissed by Van Rooyen et al. (2015, p.2). Van Rooyen et al. (2015, p.2) argue that the promotion of traditional medicine is "one of the recommendations made by the World Health Organization was to establish mechanisms that would facilitate strong co-operation between traditional healers, scientists, and regulators."

2.3 Challenges and benefits of traditional medicine and its practice

Subject to lack of sufficient research discrediting the labelling of medicine as formal or informal, traditional and official, further discussions in this research will carry on with the status quo.

Several authors have raised concerns about traditional medicine, which requires attention, although some of these are insufficient or require substantiation. The biggest challenge raised by authors such as Van Vuuren et al. (2022), Khumalo et al. (2022), Cock et al. (2022), and Orman et al. (2022) is that there is insufficient data on the therapeutic properties of several herbs or traditional medicine. This lack of information on herbs creates doubts or reluctance for fear of possible side effects.

As expressed in several articles, research can eliminate several challenges associated with traditional medicine. These include the exploration of accessibility and sustainability of species harvesting in particular geographical areas (Williams et al., 2011, p. 278); monitoring the invasion and health impacts of alien species (Williams et al., 2021, p. 70); health and safety measures on the logistics of harvesting herbs, and the implication of current methods (Van Wyk & Prinsloo, 2020, p. 54).

Research opportunities that can be explored include the expansion of knowledge on herbal products against health challenges or sicknesses "that is required to inform policy on the quality assurance of herbal medicines" (Orman et al., 2022, p. 13)Research could also explore the diversity of herbal products for commercialisation purposes (Mountessou et al., 2023; Van Wyk 2011; Ndhlala et al., 2011); to assess the feasibility of facilitating collaboration between governments, businesses, policy makers, health experts, scholars and traditional healers (Van Rooyen et al., 2015; Eze et al., 2021; Odeh & Otitolaiye, 2022).

However, there are several challenges impeding the growth of research of herbal products. Eze et al. (2021) indicate that the biggest challenge facing research on traditional medicine or herbal products is the lack of financial instruments. As a result, the market and consumer credibility become stagnant (Eze et al., 2021). Another challenge raised by Van Vuuren et al. (2022, p.24) is that "the expertise of the current researchers in the field is also fast becoming redundant as the older researchers are retiring and younger academics delve into newer more attractive fields of research". Van Vuuren et al. (2022, p.24) further argue that "the lack of research funding and regulatory frameworks guiding the use of medicinal plants also serve as a hindrance or setback in medical research".

Other challenges include the extinction of some species of herbal products, thus some or most of them are no longer easily accessible, and this is suspected to be as a result of "overexploitation and unsustainable harvesting" (Williams et al., 2011, p. 278). Another reason is that there are few to no farms that grow herbal products, hence the susceptibility to extinction. One other challenge includes the introduction of alien species from other countries, which may conflict with the herbal or plants community of the native population (Williams et al., 2021)

Following the above, Williams et al. (2021, p.70) recommends that these alien species should be banned or regularised because of their benefits. This assertion contradicts Yao et al.'s (2021, p.6) assertion that "facilitating the cross-cultural communication of the food-medicine knowledge… for the best use of the traditional health wisdom in the globe" because knowledge varies across the diversity of space and places. Sharing similar sentiments with Yao et al. (2021), Eze et al. (2021) argue that African countries must collaborate to establish a strong and reliable research base to face the enormous contemporary outbreaks and several other diseases they often encounter. Concerns were also raised by Van Wyk and Prinsloo (2020, p.24) regarding poor harvest and storage quality, resulting in contamination that affects herbal products. The contamination results in herbal products being unhealthy or safe, thereby threatening the well-being and lives of their consumers.

Like other African countries, South Africa has a pluralistic system of healthcare, in which modern medicine practice coexists with other non-conventional health systems (Williams, Victor & Crouch, 2013). These include a variety of indigenous systems based on traditional practices and beliefs.

African traditional medicine is described in the Draft Policy on African Traditional Medicine for South Africa as a body of knowledge that has been developed and accumulated over tens of thousands of years. It is associated with the examination, diagnosis, therapy, treatment, prevention of, or promotion and rehabilitation of the physical, mental, spiritual or social well-being of humans and animals (Abdullahi, 2017).

It is estimated that 80% of Africans use TM, compared to 60% of the world's population in general (Khumalo, Van Wyk, Feng & Cock, 2022). The use of ATM by the public has been long reported, and is used for many ailments and conditions including HIV, diabetes mellitus, hypertension, pain, gynecological disorders, mental disorders and asthma. While cultural practice is the common reason for use of ATM, other reasons include affordability, availability, accessibility, spiritual and emotional reasons and a general desire for wellness (Kasilo, Wambebe, Nikiema & Nabyonga-Orem, 2019).

Gunjan, Naing, Saini, Ahmad, Naidu and Kumar (2015) establish that affordability means the monetary cost associated with the utilization of TM treatment, consultation or products thereof. Availability refers to the extent to which TM treatment, provider or products are geographically available to the user. The decision to use a particular medical remedy is dependent on socio-economic variables such as the type of illness, its seriousness, the time it occurs, past experiences of the illness, access to health service, the perceived quality of the service and distrust in clinics (Williams & Whiting, 2016).

While TM may not always be affordable, it is physically, socially and culturally more available than allopathic treatment. In addition, the practice of TM is client centered and personalized, paying due regard to social and spiritual matters that are fundamental to African cultures (Kumar, 2017). In addition to healing of the mind, body and spirit, THPs serve many roles in the community, including counselling, social mediation, cultural education and being custodians of African traditions and customs.

ATM was generally associated with herbs, remedies and advice from diviners or healers with strong spiritual and cultural components. Usually, ATM would be obtained from traditional healers or by self-collection on advice from a healer or someone knowledgeable about the medicine (Mothibe, & Sibanda, 2019).

2.4 Market opportunities of traditional medicine in South Africa and possibilities

In terms of the marketability of traditional medicine in South Africa, several contributions were made. A significant proportion of reviewed studies indicate that there is an increase in prospects for the marketability of traditional medicine in South Africa (Ndhlala et al., 2011; Williams et al., 2011; Maharaj et al., 2019; Mbendana et al., 2019; Yao et al., 2021; Mountessou et al., 2023; Cock et al., 2023). While the world's population using traditional medicine is estimated around 80% (Mountessou, et al., 2023, p. 321), in South Africa it is estimated that 70% of people consult "one of the more than 200 000 Traditional Healers in the country" (Maharaj et al., 2019, p. 58). *Kwa*

Mai-Mai[1], a *muthi*[2] market in Johannesburg Central Business District is one of the many places cited in the studies.

According to Mbendana et al. (2019, p.30), South Africa faces "a rapid expansion of the activities at herbal (*muthi*) markets." This is due to poverty, high rate of unemployment and the exuberant unbearable medical costs that force people to seek alternative affordable health-care products. This assertion cannot be ascribed completely true or not, but it can be acknowledged that it is not evidently sufficient. This is because Africa, not just South Africa in isolation, is rich in diverse medical traditional herbs and its people have been dependent on them before the advent of civilization that introduced clinics, hospitals, and pharmacies (Eze et al., 2021).

The above claim, which links the use of traditional medicine with poverty and inability to afford medical costs, is dismissed by some scholars. Mountessou et al. (2023, p.321) attest that "humans have a long history of exploring natural resources to alleviate and treat a myriad of ailments, ... wherein almost all indigenous cultures have, at some time or another, made use of naturally derived medicines". Xiong et al. (2021, p.1) when exploring the possibilities of a cure for COVID-19, assert that "traditional medicine or herbal medicine have been used to treat multiple epidemics in human history in some areas". It is also noted that natural products are often less adverse in side effects as they are in their natural form and free from human alterations, which may impose the issues of lack of trust. This could be justified by speculations by Odeh & Otitolaiye, (2022) who believe that vaccines were deployed during COVID-19 to facilitate depopulation.

Traditional medicine is highly marketable because "large quantities of plants are traded annually in South Africa's traditional medicine or '*muthi*' markets" (Williams et al., 2011, p. 268). Cock et al. (2023, p. 258) argue that "in southern Africa, a high percentage of people rely on traditional medicines to treat illnesses, including for the treatment of oral pathogens". Ndhlala et al. (2011,

[1] *Kwa Mai-Mai is a place where traditional medicine, food and regalia are sold within the City Centre in Marshall-town's outskirts. In this place, medicine in the form of extracts from trees (barks, roots, and boiled concoctions) are often found displayed.*

[2] *Muthi is a Nguni word (including Xhosa, Ndebele, and Swathi) that refers to traditional medicine*.

p. 830) narrate that “the modern trend in traditional medicines reflects an increase in the sale of complex herbal mixtures rather than those prepared from single plants”. Many people have since relied on traditional medicines as their health and welfare management products (Yao et al., 2021; Xiong et al., 2021).

Based on the above research by different scholars across the world, it is therefore convincing that there is a greater economic potential on the commercialisation of traditional medicine in South Africa. However, substantive research is required, together with regularisation and good quality control measures to ensure safety (Ndhlala et al., 2011, pp. 841-842). However, little or the absence of significant research output about the benefits and dangers of herbal products; indoctrination that it is associated with witchcraft; poor quality harvesting, processing, and storage; and the lack of legal or regulatory framework guiding the practice of herbal products trade, threatens the expansion of this market and creates consumer anxiety.

Commercialization of indigenous medicinal plants has seen gradual growth since the early 1990s, with the aim of developing known medicinal plants into various health products (Asfaw et al., 2022). Commercialization is the process of introducing a new product into the commerce, such as making the product available on the market. Due to commercialization, some ATMs are ready for use from various retail outlets. These include grocery stores, *muthi* markets, health shops, street vendors, supermarkets and over-the-counter (OTC) in pharmacies. The producers of commercially available TM are the retail *muthi* shops, health shops that specialize in herbal medicines, pharmaceutical manufacturers and laissez faire manufacturers (Attah, Fagbemi, Olubiyi, Dada-Adegbola, Oluwadotun, Elujoba & Babalola, 2021).

Some medicinal plants used for common ailments have been developed into medicinal products and commercialized by large manufacturing pharmaceutical companies such as Phyto Nova Pty (Ltd) and Aspen Pharmacare. These medicines are available as formal processed and standardized preparations in modern packaging and in dosage forms such as capsules, ointments, tablets, teas or tinctures. Some of the medicines are derived from plants that are common household traditional remedies such as Aloe ferox, Artemisia afra, Harpagophytum procumbens, Hypoxis

hemerocallidea, Lippia javanica, Sutherlandia frutescens and Pelargonium sidoides (Attah et al., 2021).

There is a growing informal or semi-formal trade sector, in which a large number of medicinal plants are sold as crude and unprocessed. The traditional medicines trade is huge and growing, generating billions of Rands per annum in South Africa in various sectors. There are no clear statistics providing an indication of how many ATM (*muthi*) shops are available currently, but these shops form part of the commercial landscapes of many metropolitan centers in the country. With commercialization, many of the ATMs are being prepared and processed as herbal mixtures or concoctions readily available for sale to the public. Most of them are developed, packaged, and branded like over the counter (OTC) medicines and known herbal supplements (Van Wyk, 2020). Some of them may be in the form of coloured solids, brightly coloured and scented liquids, capsules, and incense sticks. Street vendors, owners of *muthi* shops, THPs and TM users were interviewed and agreed that the use and trade of plants for medicinal use are no longer confined to traditional healers but have entered both the formal and informal entrepreneurial sectors of the economy (Attah et al., 2021).

Plants have been the primary source of most medicines in the world, and they continue to provide humankind with new remedies. Natural products and their derivatives represent more than 50% of all drugs in clinical use, of which contribute more than 25%. These are more important in developing countries but quite relevant in industrialized world. Pharmaceutical industries consider them as a source or lead in the chemical synthesis of modern pharmaceuticals. Several African plants have found their way in modern medicine. These plants, which have been used traditionally for ages, have through improved scientific expertise been the sources of important drugs (Mahomoodally, 2017).

A great concern has been raised with regard to their purity or possible contamination during either production, storage or dispensing, which can be through adulteration by chemicals and biological contamination. Mander, Ntuli, Diederichs and Mavundla (2007) highlight that biological contamination refers to impurities in medicinal herbs and their preparations and products and may involve living microbes such as bacteria and their spores, yeasts and moulds, viruses, protozoa,

insects (their eggs and larvae) and other organisms. Microbial contamination was found in herbal medicines sold in the Nelson Mandela Metropole (Port Elizabeth) and in Johannesburg, which may pose a major health risk to patients. Thus, there is a need for introduction of guidelines for quality control in preparation and storage of ATMs and community awareness about the potential health risks (Van Vuuren, Williams, Sooka, Burger & Van der Haar, 2014).

2.5 Practice implications and solutions

Different authors raised several problems. These challenges include the need for the decolonisation of herbal or traditional practice and medicine. Several research constraints were outlined, and as a result, it becomes difficult to explore the plethora of benefits that can be attained from medicinal plants. Concerns on the regulation of the practice on traditional or herbal medicines were raised, emphasising harvesting, processing and storage. The need for the commercialisation of traditional or herbal medicine in order to contribute to the country's socio-economic condition was also discussed. There is also concern on the sustainability of herbal or traditional plants due to over-exploitation. The solutions proposed by different authors in attempt to address the above challenges are discussed below.

2.5.1 Research constraints

Odeh (2022) indicates that further research on the decolonisation of medicine is needed, and that Africans must learn to embrace the systems that kept them thriving for centuries. Cock et al. (2023, p. 1) indicate that "despite the availability of ethnobotanical records, the antipyretic properties of southern African medicinal plants are poorly reported. Indeed, the efficacy of most plants is yet to be verified and very few mechanistic studies are available." It was highlighted that more funding from governing institutions is needed to expand the knowledge base of various species of medicinal plants. Despite the need for the expansion of research capacity on different species of medicinal plants, there is need for the development of regulatory frameworks on the use of herbal plants.

2.5.2 Regulation and Quality control

As expressed by Street et al. (2019, p.1), "traditional Health practitioners in South Africa represent an important healthcare resource". However, Mbendana et al. (2019, p.30) cites that "harvesters of traditional medicine should be regularised by regulatory bodies and trained on supply chain

processes, to foster safety and good quality control measures, as the current practices distorts trust." These practices impose a health and legal concern on the communities, and different measures are enforced across the globe to monitor and do quality control on the efficacy and the safety of these medicines. However, Street et al. (2018) indicate that traditional healers and consumers of traditional medicine or herbal plants concede that regulatory framework or system to monitor quality control and the health component of these products can be established.

Street et al. (2018) and Van Wyk and Prinsloo (2020) show that there are strides or measures being put in place for the control of the traditional medicine practice. Van Wyk and Prinsloo (2020, p.60) indicate that the "guidelines for collection and post-harvest handling are available and are necessary to prevent contamination of plant products used as medicines and/or food." Street et al. (2018, p.4) indicate that "the South African Department of Health has taken steps toward the recognition of traditional medicine by establishing a Traditional Medicine Directorate within the National Department of Health and enacting sections of the THP Act, namely establishing the Interim THP Council". However, Van Wyk and Prinsloo (2020, p.60) further indicate that "regulatory authorities should focus on the screening, standardisation, packaging, labelling (including warnings where applicable), and the registration and licensing of plant-based medicines to ensure that consumers use safe and effective medicines and health products".

2.5.3 Co-productive knowledge and practices

The world is on the verge of climate change and rapid urbanization. Unreliable temperature changes affect people's immune systems, and as a result, people become sick. Rapid urbanization increases population in an urban setting, wherein this growth results in urban challenges such as pollution. Increasing environmental pollution negatively influences the health of people, by increasing and introducing different diseases in people's lives. The increase in the proportions of diseases and the current surge of outbreaks such as COVID-19 exerts pressure on the state, health practitioners, policy makers, scholars, and the members of the public.

Due to the above, it is necessary to collaborate in an attempt to explore, simulate, and understand the daily and possible realities people face. Various authors propose the development and strengthening of existing collaborations, towards problem solving. It is argued that "African

governments, policy makers, health experts and scholars should come together" (Odeh & Otitolaiye, 2022, p. 46), to drive the manifestation of traditional medicines. Eze et al. (2021) show that professional collaboration can establish strong reliable research base from the little resource capacity they have to face the enormous contemporary outbreaks likely to emanate.

Given the over-burgeoning of diseases on the realm of modern medicinal incapacity, it is necessary to facilitate "professional collaboration between traditional and allopathic health practitioners in order to complement healthcare delivery" (Van Rooyen et al., 2015, pp. 1- 8). Xego et al. (2021, p.5-6) allude that "it is crucial to enhance collaboration between the existing healthcare systems and herbal traditional medicines in the provision of better care to patients at risk of, or who have been diagnosed with, cancer". A similar narrative was shared by Omokhua-Uyi and Van Staden (2021, p.386) during COVID-19 who indicate that "collaborative efforts between researchers, clinicians, governments and traditional medicinal practitioners in the search and development of safe and effective therapeutics from natural products for the treatment of COVID-19 could be a potential option". The benefits of these collaborations as summed by Yao et al. (2021, p. 6) is "to make the best use of the traditional health wisdom in the globe".

2.5.4 Commercialization

According to Van Vuuren and Frank (2020, p.1), "medicinal plants are vital in the thriving of society, despite the absence of several studies to justify their health benefits and side effects, due to insufficient research output". These herbs are mostly preferred because they "are considered to be healthy, pure and safe as it is obtained from natural resources" (Van Wyk & Prinsloo, 2020, p. 54). As alluded by Van Wyk (2011, pp. 826-827), "there is an urgent need to encourage bioprospecting and new product development, to build local capacity in this field and to implement measures to counteract the negative perceptions and practical difficulties associated with restrictive new regulations". Once this is done, the idea of commercialization can flourish, because people need to be educated about traditional medicine's benefits and implications.

It is also significant to ask, how can one harvest to sell what they did not plant. This is because "the selection of African medicinal plants appears to be based on availability" (Van Wyk, 2020, p. 1). Hence, for decades, the rationale of traditional medicine or herbal plants has always been to

sustain lives without profit maximization. The idea of commercialization of traditional medicine or herbal plants may come at large scale, and without the establishment of sustainability methods, such as farming of these herbs. Boophone Disticha is one of the best sold traditional medicine in the market, mainly because of "its promising pharmacological and phytochemical profiles that have stimulated significant interest in the clinical realm, especially in the areas of cancer and motor neuron disease chemotherapy" (Nair & Van Staden, 2014, p. 12).

2.6 Evolution of traditional medicine in South Africa

Traditional medicine is an object or substance used in traditional health practice for the diagnosis, treatment, or prevention of physical or mental illness or human well-being. Traditional health practice means the performance of a function, activity, process or service based on traditional philosophy, including the utilization of TM. Traditional healing is associated with herbs, remedies, and advice from a traditional healer, with a strong spiritual component. For this reason, it is impossible to separate African traditional healing from African spirituality (Mukherjee, 2019).

African spirituality encompasses belief and worship to God, and reverence and acknowledgement of ancestors. Ancestors are compassionate spirits of the departed blood-relatives of an individual and may involve a whole lineage spanning generations (Nkwadi, 2021). They are revered but not worshiped as one would pray to God and serve to mediate between the living and God. They are regarded as custodians of the lives of future generations and therefore, occupy a position of dignity and respect within their descendants. Anecdotal evidence has been noted, where a client or a trainee healer inadvertently discovers their true identity in terms of family name and origin, something that would cause consternation in families, particularly where this had been kept secret from the individual (Quinn, Banat, Abdelhameed & Banat, 2020).

This is equivalent to how DNA tests confirm blood relations in orthodox medicine. African traditional healing or African indigenous healing in South Africa is closely associated with African indigenous churches, most of which practice Christianity. This is largely because of early influence by Western missionaries and colonization. Nonetheless, African traditional healing embraces God as the Supreme Being and Creator, the main pillar of the universe and is the same God that Christianity and other religious practices believe in (Nkwadi, 2021).

Communication with ancestors is facilitated by a THP who would also guide on ways to specifically communicate depending on the purpose and the ritual required. The consultation occurs at different periods and differs from group to group. The ritual usually involves the slaughtering of an animal such as chicken, goat, sheep or cow, depending on the purpose, the significance or the instruction from ancestors (Louw, 2020). The slaughtering is important as the blood signifies the connection between the individual and the ancestors. It represents the eternal bond between the ancestors and their descendants. For that reason, the slaughtering has to be done properly, according to specific instructions and at the right place, which often is the homestead and can never be at an abattoir. This spiritual healing provides a sense of security, anchoring and validates the identity of descendants and a sense of belonging and purpose in life (Matsabisa, Alexandre, Ibeji, Tripathy, Erukainure, Malatji & Chabalala, 2022).

Ancestors may extend beyond the individual or personal level, as when dealing with community issues. In such cases, reverence will be directed at the ancestors of the village, the tribe, or the country. According to Nkwadi (2021), THPs are classified as diviners, herbalists, traditional surgeons, and traditional birth attendants. A traditional healer is ‘a person who is recognized by the community where he or she lives as someone competent to provide health care by using plant, animal and mineral substances and other methods based on social, cultural, and religious practices. Under colonial and apartheid South Africa, the practice of TM was deemed unscientific and illegal, uncivilized, scientifically unfounded, backward, and superstitious. The Witchcraft Suppression Act of 1957 and the Witchcraft Suppression Amendment Act of 1970 declared TM unconstitutional and prohibited TM practitioners from doing their business. Cooperation between conventional health practitioners (CHPs) and THPs was outlawed by the Medical Association of South Africa in 1953. The prohibition of TM was somewhat based on the conviction that the concept of disease and illness in Africa was generally rooted in witchcraft (Nkwadi, 2021).

An attempt to regulate the practice of THPs was made in 1982 through the promulgation of the Associated Health Service Professions Act of 1982, as amended. This Act set up a registration and licensing scheme for herbalists, chiropractors, homoeopaths, osteopaths, and naturopaths, but prohibited their use of the title ‘Medical Practitioner’. The province of KwaZulu-Natal was the

exception and had a different law on the licensing and control of THPs, which was covered by the KwaZulu Act on the Code of Zulu Law (CZL) of 1981. The CZL allowed for the practice of THPs who were licensed and allowed for them to claim a fee for services rendered (Mothibe & Sibanda, 2019).

Before the first democratic government in South Africa in 1994, the African National Congress (ANC) submitted its health plan that THPs would become an integral and recognized part of the health care system. It claimed that patients would be granted the right to choose their preferred health care practitioner. At the same time, the ANC realized the need to regulate the practice of THPs to protect patients from harmful practices. The ANC's health plan further stated the need to promote cooperation and liaison between THPs and allopathic health practitioners (Mothibe & Sibanda, 2019).

South Africa is a member state of the WHO, the AU, and the Southern African Development Community (SADC). All three bodies have made resolutions, which urge member states to develop and implement national policies on ATM. The South African government has therefore taken steps towards the official recognition, acceptance and institutionalization of ATM. Institutionalization means formalization and official incorporation of TM into the national health system (Matsabisa et al., 2022).

2.6.1 Advantages and disadvantages of traditional medicine

Both Western and traditional medicine come with their own challenges. Currently, there are many western drugs on the market, which have several side effects despite their scientific claims (Okaiyeto, 2021). In like manner, African traditional herbal medicine or healing processes also have their own challenges. The following are reported as some of the advantages and disadvantages of traditional medicine:

Advantages: African herbal medicine is holistic in the sense that it addresses issues of the soul, spirit, and body. It is cheap and easily accessible to most people, especially the rural population. It is also considered to be safer than orthodox medicine, as it is natural in origin (Ozioma & Chinwe, 2019).

Disadvantages: Some of the disadvantages include improper diagnosis, which could be misleading. The dosage is most often vague, and the medicines are prepared under unhygienic conditions, as evidenced by microbial contamination of many herbal preparations sold in the markets. The knowledge is still shrouded in secrecy and not easily disseminated. Some of the practices, which involve rituals and divinations, are beyond the scope of non-traditionalists such as Christians who find it incomprehensible, unacceptable, and difficult to access such services (Mensah, Komlaga, Forkuo, Firempong, Anning & Dickson, 2019).

2.7 Literature review Conclusion

Peer-reviewed journal articles from various publication platforms were collected for review, with the purpose of understanding whether medicinal herbs or traditional medicines are marketable in South Africa. Several authors flagged the importance of traditional medicine or herbs in everyday life and for future application (Van Wyk, 2011; Nair & Van Staden, 2014; Maharaj et al., 2019; Van Wyk, 2020; Narasimhan & Chandanabhumma, 2021; Khumalo et al., 2022; Mountessou et al., 2023). However, several concerns were raised, which includes lack of research to justify their usability, though one Boophone Disticha was found to be more effective, particularly in the chemotherapy of cancer patients (Nair & Van Staden, 2014).

The harvesting, processing and storage of traditional medicine has been criticised for being of lower standards, possibly endangering people's lives (Mbendana et al., 2019). Due to that, calls for regularisation were made, while fewer attempts and commitments on practice were shared (Street et al., 2018). Commercialisation of traditional medicine was also projected with the aspiration of boosting socio-economic standards of living (Mountessou et al., 2023; Ndhlala et al., 2011; Van Wyk, 2011). Conclusively, concerns about the sustainability of harvesting traditional medicine were raised (Williams et al., 2011), but measures of how to address this over-exploitation of traditional medicine was not discussed.

The use of traditional medicine in South Africa is high, therefore, according to available literature; marketing traditional medicine will not be difficult in South Africa. The study found that TM is very prominent and there are traditional healers who supply it. The study underscores the need for frameworks for fair and equitable sharing of all benefits arising from the ATM products involving

all the stakeholders. It argues for further investment in ATM as a complement to conventional medicine to promote attainment of the objectives of healthcare in South Africa.

Long before the advent of Western medicine, Africans had developed their own effective way of dealing with diseases, whether spiritual or physical, with little or no side effects. African traditional medicine, of which herbal medicine is the most prevalent form, continues to be a relevant form of primary health care despite the existence of conventional Western medicine. Improved plant identification, methods of preparation, and scientific investigations have increased the credibility and acceptability of herbal drugs. On the other hand, increased awareness and understanding have equally decreased the mysticism and gimmicks associated with the curative properties of herbs. As such, a host of herbal medicines have become generally regarded as safe and effective. This, however, has also created room for quackery, massive production, and sales of all sorts of substandard herbal medicines, as the business has been found to be lucrative.

South African traditional medicine may have a bright future, which can be achieved through collaboration, partnership, and transparency in practice, especially with conventional health practitioners. Such collaboration can increase service, health care provision, economic potential, and poverty alleviation. Research into traditional medicine will scale up local production of scientifically evaluated traditional medicines and improve access to medications for the rural population. This in turn would reduce the cost of imported medicines and increase the countries' revenue and employment opportunities in both industry and medical practice. With time, large-scale cultivation and harvesting of medicinal plants will provide sufficient raw materials for research, local production, and industrial processing and packaging for export.

2.8 Research Framework

South Africa experiences multitudes of diseases and outbreaks, which overwhelm modern medicine. Various authors have recommended collaboration between modern and traditional medicine. However, several challenges with traditional medicine prevail and these includes lack of legal frameworks regulating the harvest, storage, and the medicinal qualities (health benefits and side effects) of herbal plants. Several research has been conducted, and proposals for more research on traditional medicine proposed. This was supported by different requests for creating a conducive platform for traditional medicine to emerge.

The challenge is that several people opt for western medicine because it has been tried and tested, and traditional medicine is based on knowledge, which is verbally transferred from one person to the other generationally. As a result, proving its safety becomes a serious concern and this therefore deals with its marketability in the country. This chapter therefore explores various theories of traditional and or herbal medicine, in order to determine or discover ways for fostering their marketability and increased demand to augment modern medicine in South Africa.

2.8.1 Theoretical framework

The theories to be applied in discussing this paper entails traditional medicine theory, Customer Relations Management, and Customer Knowledge Management.

Traditional medicine

It is argued that Hippocrates is the father of modern medicine (Grammatios & Diamantis, 2008), while other studies also alludes that he is the father of medicine in its entirety. Over the years, traditional medicine has been transcribed to ethnicities, cultural and geographic origin, hence the name. This conceptualisation includes African Traditional Medicine, Traditional Chinese Medicine, Traditional Western Medicine, amongst the rest. The view of this paper is that medicine should be de-contextualised from tradition, ethnic or group boundaries as it raises individualism and biases. It is argued that supra-national collaboration in knowledge sharing about traditional medicine will address the plethora of health concern the world is facing.

Customer Knowledge Management

Different definitions of Customer Knowledge Management (CKM) have been discussed by various authors. Amongst the reviewed literature, Castagna et al. (2020, p.2) indicate that Customer Knowledge Management (CKM) is "the logical intersection of customer relationship management (CRM) and knowledge management (KM)". Dalili and Baheshtifar (2018, p.11) define CRM as s "an interactive process focused on obtaining optimum balance between investments made by an organization and the satisfaction of its clients, which leads towards an overall profit maximization".

Castagna et al. (2020) cite the relationship between the companies or producers and consumers as important, similarly to knowledge management or what is known about the products and the needs of consumers. On the other hand, Dalili and Baheshtifar (2018) emphasize the importance of balance between the needs of the consumers and the producers. In this essence, the producers or

companies refers to individual and group of herbal or traditional healers and the producers of herbal products, such as green teas, and others.

Khosravi & Hussin, (2016, p. 265) argue that "Customer Knowledge Management (CKM) is regarded as a strategic practice in progressive companies for gaining capability to change their customers from passive recipients of products and services to active knowledge-oriented partners". In this definition, the phrase 'gaining capability' refers to measures of convincing the customers who are not obligated to their products or services, to be informed and drawn into what they produce. This will be delivering the customer's needs at the anticipated or desired quality and effect. To do that, Customer Knowledge Management also becomes significant, as the rationale is to bring producers and consumers together, so that both may have a better understanding about everyone's needs and interests (Sharifi, Sanayei & Ansari, 2022).

According to Sharifi et al. (2022, p. 119), there are three forms of knowledge: 'knowledge from the customer', 'knowledge about the customer' and 'the knowledge for the customer'. These are important in Customer Knowledge Management as key determining factors. The above is supported by Khosravi & Hussin (2016, p. 270 – 265) who argue that Customer Knowledge Management "is about acquiring, sharing, and enlarging the knowledge residing in customers contributing to both customer and corporate welfare". Briefly, the more aware the customers are about a particular product with greater potential effects, the more the producer obtains more support from customers. However, in this instance, several research output reveal the presence of gaps, fears of insecurity and lack of regularisation, thus compromising the need of support.

Khosravi and Hussin (2016, p. 270 – 271) propose the following phases when dealing with Customer Knowledge Management: 1) Unawareness, where the company is not aware about the expectations of the potential customer base, and implication knowledge can facilitate customer-base growth; 2) Knowledge repository, entailing communication infrastructure and systems, for the public to learn about the products a particular group of individuals offer; 3) Knowledge route map, where the information that the consumers must know is contextualised in a manner that will be easy to facilitate change and continued support; 4) Collaborative platform, where different skilled companies and individuals in certain products, such as herbal plants and their uses, connive with the consumers to obtain as much information required to satisfy their needs and interests; 5) Organizational learning, where an organization producing herbal medicine and products learn

about the interests of the potential consumers of their products; and 6) Organizational innovation and quality, where the information obtained from potential customers is put into practice in order to guarantee their support and profit maximization.

Social media trends, good stories of practice or success, recognition by renowned and legitimate organizations, and practical results of effect, can draw the attention of the consumers. The companies or organization producing herbal products will be likely to maximise profit if Customer Knowledge Management is well put into practice, while on the other hand, the customers will find solutions to their problems, where their needs, and interests will be fulfilled. In that regard, the plethora of challenges explored in the literature review will be addressed, thus regaining public or consumer confidence and satisfaction.

Customer Relationship Management

Different authors discussed various contributions and perceptions about Customer Relationship Management. Muneeb and Shinwari, (2020, p. 4) explained Customer Relationship Management as "an information technology system that gathers and utilizes customer information for the organization so that the organization may anticipate customer wants, need, and desires and thereby building lasting customer business relationships". Dalili and Baheshtifar (2018, p. 12) define it as a "philosophy, process and concept of developing and managing customer relationships". Hassan et al. (2015, p. 564) view it as "a hostile process of identifying, attracting, differentiating and retaining customers".

In the 1980s, Customer Relationship Management was called database marketing, while in the 1990s it changed to what it is today. Officers collected information from customers and clients in order to build a database to be used as a tool of delivering customer satisfaction (Elena, 2016, p. 785). The scope or mandate of Customer Relationship Management has not changed but diversified. As seen with the definitions above, the description of Customer Relationship Management is that it is a 'philosophy' because it is focused on studying the behavioural patterns and needs of consumers (Dalili & Baheshtifar, 2018). It is also expressed as a process, because the study is not static but follows through the series of events that constitute customer reactions and choices. Muneeb and Shinwari (2020, p. 4) refers to it as "a technological information system because the advent of technology such as Artificial Intelligence, Big Data capacity and analytics, Machine learning and social media, to name a few has revolutionarised this field of practice".

Therefore, Customer Relationship Management is twofold :1) the need of companies and organizations producing herbal products to understand the environment within which they operate by studying the behavioural patterns, challenges and preferences of the potential customers; and 2) the provision of solutions to the customers, thus yielding a win-win scenario in this relationship. As alluded by Muneeb and Shinwari, (2020, p. 4), "the overarching goal is to increase customer share and customer retention through customer satisfaction". The outcome of this effort is "to increase the market share, to enhance productivity, and employee's morale which improves the in depth customer knowledge and also higher customer satisfaction to improved customer loyalty company will also have the clear information that what are their customers, what are their needs, and what will make them more satisfied" (Hassan, Nawaz, Lashari & Zafari, 2015, p. 563).

Indigenous Knowledge Systems

Indigenous knowledge system "refers to the local knowledge that is unique to a given culture and acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture" (Abah, Mashebe, & Denuga, 2015, p. 668). Given the narrative that "Modern Western thinking is an abyssal thinking. It consists of a system of visible and invisible distinctions, the invisible ones being the foundation of the visible ones. The invisible distinctions are established through racial lines that divide social reality into two realms, the realm of "this side of the line" and the realm of "the other side of the line". The division is such that "the other side of the line" vanishes as reality and becomes non-existent" (de Sousa Santos, 2007, p. 1), one may question if traditional medicine is not intentionally contextualised to exclude it in the mainstream medicine.

Abah et al. (2015, p.668) allude that several fields of practice, like education that Battiste (2013) advocates for its decolonization, have been nullified if originating from the global south. The Euro-centric outlook continues to dominate the Western belief systems and approaches, even when their realities are not compatible to the local scope and scale. This approach condemns the developing countries into non-existence (de Sousa Santos, 2007; Abah, Mashebe, & Denuga, 2015). This is because "over time, Indigenous peoples around the world have preserved distinctive understandings, rooted in cultural experience, that guide relations among human, non-human, and other-than human beings in specific ecosystems" (Bruchac, 2014, p. 3814). An example is the collection of several medicinal plants using indigenous knowledge systems approach in the study

conducted by Sivasankari et al. (2014). Indigenous knowledge system has the potential of expanding solution-seeking knowledge and contribution to more innovation and creativity as "it encompasses the technology, social, economic and philosophical, learning and governance systems" (Abah, Mashebe, & Denuga, 2015, p. 668).

2.9 Conclusion

It is assumed that by integrating traditional medicine, customer knowledge management, customer relationship management and Indigenous knowledge system, this paper can produce the best output.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The methodology is explained in this chapter and demonstrates how the author approached the research. In addition to outlining the methods used to collect data, which included interviews, this chapter also explains the approach chosen and associated drawbacks. The methodology is comprehensive to allow duplication of the study by other researchers.

3.2 Research Methodology

This study used a qualitative research methodology to align with its objectives on marketability of traditional medicine in South Africa (Al Maktoum, 2024). This study adopted a qualitative research approach to align with its objectives. The study used qualitative research because the study is exploratory in nature. Qualitative methods were used to study the behaviour of consumers. The goal of the study was to generate insights for direct and indirect indigenous knowledge system practitioners to better comprehend the demands of traditional medicine users. The researcher used qualitative methods including interviews and a brief descriptive questionnaire to collect insights from participants.

3.3 Paradigm - postpositivism and interpretivism paradigm

The researcher used a qualitative research approach and case study research design, located within postpositivism and interpretivism paradigm. The study used a questionnaire tool to collect data due to the reach's small population.

3.3.1 Research paradigm

The researcher used a qualitative research approach and case study research design, located within postpositivism and interpretivism paradigm. This research is grounded in an interpretivist paradigm, acknowledging subjectivism. Interpretivist researchers believe in reality based on people's subjective experiences of the external world (Kumatongo, 2021). It relies on an understanding that reality is subjective and socially constructed. It recognizes that individuals interpret their experiences and the world around them based on their unique perspectives, values, and cultural contexts. The approach taken is inductive, allowing themes and patterns to emerge from the data rather than testing pre-established hypotheses. This is aligned with the exploratory nature of the study, seeking a deeper understanding of the marketability of traditional medicine in

South Africa. The study adopted a subjectivist perspective, recognizing that the participants' subjective experiences and interpretations are valuable in understanding the marketability of traditional medicine. The purpose of any research study within the interpretive paradigm is to understand and interpret a specific context as it is, rather than to generalise or replicate the study (AKPAN, 2022). By delving into the lived experiences and perceptions of traditional healers, herbalists, and health practitioners, the research aims to capture the subjective realities that shape the market dynamics of traditional medicine.

3.4 Research design

In qualitative research, a case study research design is flexible and deals with a variety of evidence, which leads to triangulation of data (Muzari, 2022). The research was conducted using an interview guide. The design of the interview guide was important to ensure the objectives of the study are met, and sufficient data is collected to answer the research questions (Maxwell, 2014). A semi-structured interview guide was used to give respondents the chance to elaborate on their experiences to better understand the marketability of traditional medicine in South Africa. All respondents received instructions on the interview process.

*3.*4.1 Population and Sample

The following groups were investigated, consumers of traditional medicine, traditional healers, traders, regulators, traditional healers and health care workers. The qualitative data comprised enormous data files of text transcriptions, from interviews. In order to get a usable conclusion from the information, the data must be "reduced" into a concise message for the reader (Huda, 2024) .

The aim of the study is to make clear to which group the research findings can be applied or for which group the findings can be generalized. The researcher engaged with consumers, traditional healers and hospital professionals. The study investigated the challenges faced by traditional healers, benefits of traditional medicines, implications of using traditional medicine by hospital professionals, and consumer experiences of using traditional medicines in South Africa.

3.4.2 Sample and sampling method

To ensure credibility of the study, selecting sample size and method is important. The aim of the study was to suggest marketability of traditional medicine in South Africa. The research adopted

an objective view in the specific strata's, which were consumers of traditional medicine, traditional healers, traders, regulators and health practitioners.

Determining a sufficient sample size for a qualitative study can be a tricky task. Sim et al. (2018) suggest that an appropriate sample size can be achieved by comparing with similar academic work or using academic referencing. Another thing to consider in determining sufficient data is the *point of saturation*, which is often reached in interviews between 9 and 17 individuals (Hennink & Kaiser, 2022). As a result, the study engaged with 23 people, which was an adequate sample size.

3.5 Data collection

Semi-structured interviews were conducted for a maximum of 45 minutes after the research process was explained to participants. Participant were also requested to read the participant information leaflet and sign an informed consent form prior to the commencement of interviews. The researcher used purposive sampling of the target population based on the relevant experience and expertise on the marketability of traditional medicines in South Africa. The interview participants were from the Gauteng and Limpopo provinces in South Africa.

3.6 The Research instrument

The research instrument used was an interview guide with semi-structured questions that were aligned with the objective of the study. The study was exploratory in nature. The research instrument was designed with a specific population in mind.

3.6.1 Interviews

Semi-structured interviews were conducted with the relevant participants to give insights on the marketability of traditional medicine in South Africa. The interviews lasted for a maximum of 45 minutes after the research process was explained to participants.

3.7 Data analysis strategies and interpretation

The technique of data analysis frequently entails several steps, such as data collection and organizing. Thematic analysis was used as a method of data analysis using a software tool to code, categorise and analyse the interview verbatim. The process involved six main steps, which are familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up.

3.7.1 Quality Assurance

The term "quality assurance in research" (QAR) refers to the methods and systematic processes and activities implemented, tools, and resources used to guarantee the care and oversight over a research project. The handling of samples and materials is also documented in research (Messer, 2023). The study verbatim and interview documents (raw data) were be stored securely at the University of the Witwatersrand for a minimum of five years before disposal.

3.7.2 Validity and Trustworthiness

The study used triangulation to validate the finding, different theories are applied in theory triangulation in order to examine and understand data. When using this kind of triangulation, several theories and hypotheses might help the researcher to validate results. In order to obtain numerous viewpoints and validation of data, data source triangulation entails gathering data from several types of people, including individuals, groups, families, and communities (Triangulation, 2014). In addition, quotation from interview as audit trail are used.

3.8 Ethical considerations

The following ethics guidelines were observed during the course of the study process. Prior to starting the research, the University of the Witwatersrand Human Research Ethics Committee (Non-Medical) was consulted, and ethics approval granted. All study participants were requested to give their informed consent before engaging in interviews, which confirmed that they were aware of the study's goals, methods, potential risks, and advantages. They were also informed of their right to withdraw participation without providing any reasons or facing repercussions. The anonymity of participants was maintained and all interview verbatim and transcripts were recorded as “respondent 1, 2, 3 etc., respectively. The actual names of participants were not mentioned during the interview, in thematic analysis or report writing.

CHAPTER 4: PRESENTATION OF FINDINGS

4.1 Introduction

The purpose of this chapter is to present empirical findings and implications of the study. The data are analysed and interpreted rigorously, revealing the patterns, trends, and relationships outlined in earlier chapters. This section presents the raw results and provides a nuanced understanding of their significance by connecting them to existing literature and theoretical frameworks. By synthesizing empirical evidence with theoretical insights, we aim to offer new perspectives, address limitations, and inform future research directions. Our research also seeks to contribute to the existing body of knowledge and provide meaningful insights that will help inform policy decisions. The objective of the study was to explore marketability of traditional medicine in South Africa.

4.2 Overview of Data Collection Methods

Twenty-three individuals were interviewed, comprising three regulators, four healthcare practitioners, three traders and resellers, seven consumers, and six traditional healers in their respective fields. A questionnaire was completed for each participant. The data collection tool was an interview guide, which had a questionnaire section for general participant information, giving the demographics of each interviewee group. The questions were categorized into the following headings: interviewee demographics, marketing strategies of ATM, the regulation of Traditional Medicines (TM) in South Africa , the identification of appropriate marketing techniques, the determination of supply chains/market channels for Traditional Medicines in South Africa, the marketability of traditional medicines, perceptions on the integration of traditional medicines into healthcare system, and the general perceptions of consumers on the use of ATMs.

The use of both questionnaires and interview guide provided an opportunity to understand the demographics of each interviewee group (consumers, traditional healers, ATM resellers and traders *"muthi"* shops, health practitioners and regulators) and how these parameters affected perceptions about ATMs, consumer behaviour and marketing trends.

4.3 Thematic Analysis

A thematic analysis approach was used to analyse the qualitative data from the above explained PRISMA guided interviews. The researcher closely examined the data to identify common themes, which are listed below as bulleted subtopics, expanded ideas and patterns to give meaning to the data. The thematic analysis reveals key themes among traders and resellers of traditional medicines, encompassing the sourcing and supply of traditional medicines, packaging methods, customer inquiries, advertising and promotion, and challenges faced in selling traditional medicines. The findings shed light on the dynamics within this sector, highlighting the need for careful supplier management, effective communication channels, and considerations in packaging to align with customer preferences and privacy concerns. The research has provided valuable insights into the perceptions, usage patterns, and purchasing behaviours related to African Traditional Medicine (TM) in South Africa. To make traditional medicine more appealing to buyers and ensure success in trading, several key considerations emerge from the findings. These will be discussed in depth as emergent themes.

4.4 Discussing emergent themes

The emergent themes that arose from the thematic analysis are presented below. The discussion provides a structured overview of the emergent themes identified in the qualitative analysis and implications thereof. It further provides a brief overview of the overall study findings. This section examines how the study has answered the research question and fulfilled the objectives.

Research question 1 – How can traditional medicine be marketed in South Africa?

Theme 1 - Consumer needs and preferences: Understanding and recognizing the diverse range of consumers and their health needs, price sensitivity, quality, choice, and convenience is crucial. Tailoring traditional medicine offerings to address specific ailments, age groups, and preferences identified in the study could assist in marketing traditional medicine.

Consumer when asked – what influences you to buy traditional medicine their response was,

Respondent 1: "I have specific health needs, and if traditional medicines can cater to those needs, I am more likely to be interested."

Respondent 2: I prefer good quality product, well prized, convenient to buy and a variety of choice.

Theme 2 - Leveraging word of mouth and testimonials: Given the reliance on word of mouth mentioned by respondents, creating a system for positive testimonials and experiences can serve as a powerful marketing tool. Encouraging satisfied customers to share their success stories can build trust and credibility.

When asked to share their knowledge and experience on how traditional medicine is advertised, consumers indicated that:

Respondent 1: "Traditional healers who have a good reputation in the community get a lot of business. It's all about what people say."

Respondent 2: "Word of mouth is strong. I'd trust a traditional medicine more if I hear positive *things from those who've used it. There are minimum adverts, mostly sold by traditional healers at home".*

Respondent 3: "Most traditional medicines are not advertised. I personally rely on other people's experiences; word of mouth best advertise traditional medicine and referrals."

Theme 3 - Quality Assurance and Standardization: By addressing concerns about varying quality requires establishing and promoting quality assurance measures. Standardizing production processes and ensuring consistency in the effectiveness of traditional medicines can build trust among consumers.

Respondents when asked what their take on traditional medicine and their experiences is when buying them. They mentioned that:

Respondent 1: "Traditional medicine is not tested for quality and some days when you buy the same product, it looks and taste different. Therefore, standardization is lacking.

Respondent 2: "Standardization is important. If I know there's a consistent quality, I'd be more likely to trust and use traditional medicine."

Research question 2: What are the current marketing techniques appropriate for traditional medicine?

Consumers would like to be informed about the products promotions and marketing plays an important role in giving information about the products and creating awareness.

Theme 1 - Educational Campaigns: Given the limited advertising observed in the study, educational campaigns become essential. Informing the public about the benefits, usage, and cultural significance of traditional medicine through various platforms can contribute to increased awareness and appeal.

From marketing perspective, what influences you to buy traditional medicine? Consumers said:

Respondent 1: "Through educational messages from exhibitions, traditional healers or herbalist on Tik-Tok and radio."

Respondent 2: "Information is crucial. If there were more educational campaigns, people might understand traditional medicines better."

When asked what the respondents think about how traditional medicines are advertised and sold, respondents mentioned that:

Res*pondent 3: "packaging is not presentable. If the packaging was innovative and attractive with labelling and instructions on how to use, that will showcase the benefits.*

When asked what influences you to buy traditional medicine, a respondent said that:

Good packaging, with correct labelling, sell or use by date and instructions on how to use the product.

Theme 2 - Digital Platforms and Online Presence: Leveraging digital platforms can serve as an effective marketing tool for traditional medicine. Respondents believes that digital marketing is taking shape and the study indicates an opportunity to expand the reach through digital platforms. Creating an online presence, utilizing social media, and implementing e-commerce strategies could enhance accessibility for those facing geographical challenges.

In response to inquiries about their purchasing habits, consumers expressed varied preferences, while traders and traditional healers outlined diverse selling locations for traditional medicine.

Respondent 1: "I'd prefer to purchase online for convenience. Having a strong online presence gives me more options and accessibility."

Respondent 2: "An online presence is important. It's how I discover new products and learn about different traditional medicines."

Respondent 3: I sell via TikTok, Facebook marketplace and I have online store

Theme 3 - Increased value Chains: By exploring alternative value chains, such as partnerships with pharmacies, wellness centres, or even incorporating traditional medicines into mainstream healthcare, can broaden the market reach and availability.

When asked where do you sell traditional medicines, traders, pharmacists and entrepreneurs mentioned that:

Respondent 1: On Tik Tok. I talk about benefits and transact on WhatsApp.

Respondent 3: I sell to wellness centre, spas, and gyms.

Respondent 3: I sell in my pharmacy.

Research question 3: How can the identified marketing techniques be made more effective?

Theme 1 - Increasing Marketing Resources: Providing financial support and resources, especially for small and medium enterprises (SMMEs) and traditional healers, can enable them to implement effective marketing strategies, including advertising, promotions, and market research.

- *Respondent 1: "Marketing is expensive and backlash due to stigma attached to TM."*
- *Respondent 3: "Funding for SMMEs and Indigenous knowledge holders to compete and provision of information to traditional traders."*

Theme 2 - Addressing packaging and labelling challenges: Traditional medicine practitioners face difficulties due to inadequate packaging and branding, hindering market acceptance. Proper packaging with correct labelling is seen as essential for successful marketing.

Respondent 1: "Not properly packaged and branded, hindering the marketability of traditional medicines."

Research question 4: What are the challenges facing traditional medicine in South Africa?

Theme 1 - Societal stigma: Some respondents highlighted the negative societal perceptions surrounding traditional medicine, creating a challenge for marketing. Stigma acts as a barrier, impacting consumer acceptance and hindering the mainstream integration of traditional medicines.

- *Respondent 1 mentioned that: "Some cultures will not accept to use plant-based TM compared to those that are well packaged and sold at formal chemists or shops."*
- *Respondent 2 pointed out societal stigma as an obstacle, stating that: "Marketing is expensive, and there is backlash due to the stigma attached to TM."*

Theme 2 - Regulatory Uncertainty: Respondents noted the absence of full regulation in the traditional medicine sector, contributing to marketing challenges. The study shows that lack of regulatory frameworks may affect consumer trust and market expansion.

- *Respondent 3 highlighted that: "Not fully regulated as we have bodies like SAHPRA and DAFF who are trying to put in place regulations, and though there is no policy."*
- *Respondent 2 emphasized the importance of regulation, stating that: "It assists consumers to understand the active ingredients that are efficient for different ailments."*

Theme 3 - Poor packaging, labeling and branding: Improving the packaging and branding of traditional medicines, ensuring clear and appealing packaging and providing comprehensive information about the product can enhance its marketability.

- *Respondent 1 mentioned that: "Traditional medicine is not properly packaged, branded nor labelled."*

Theme 4 - Limited Marketing Resources:

- *Respondent 1:* "Marketing is expensive and backlash due to stigma attached to TM."
- *Respondent 2: "Funding for SMMEs and Indigenous knowledge holders to compete and provision of information to traditional traders."*

Addressing this theme: Providing financial support and resources, especially for small and medium enterprises (SMMEs), can enable them to implement effective marketing strategies, including advertising, promotions, and market research.

CHAPTER 5: DISCUSSIONS

5.1 Introduction

The purpose of this chapter is to interpret and discuss the results. The objectives of the study were:

- To explore the marketability of traditional medicine in South Africa.
- To explore current marketing techniques suitable for traditional medicines in the South African market.
- To explore the effectiveness of the identified techniques in attracting new customers and increasing market share.
- To explore the challenges faced in marketing traditional medicine in South Africa.

This section involves a comprehensive analysis and understanding of the themes identified within the thematic analysis. This phase of the research process involves examining the significance and implications of the identified themes in relation to the research objectives, theoretical frameworks, and existing literature (Kiger & Varpio, 2020, p. 846-854).

5.2 Discussions

It is imperative to examine strategies for enhancing the appeal of traditional medicine closely. It is important to assess efforts for optimization of the value chains in order to improve accessibility and distribution. It is also crucial to implement effective marketing approaches tailored to the unique cultural context of South Africa. These important observations are discussed in detail below.

Research question 1: How can Traditional medicine be marketed in South Africa?

Theme 1: *Understanding Consumer Needs and Preferences*

Recognizing the diverse range of consumers and their health needs is crucial. Tailoring traditional medicine offerings to address specific ailments, age groups, and preferences identified in the study could enhance appeal (Amzat et al., 2018).

Theme 2: ***Quality Assurance and Standardization***

Addressing concerns about varying quality requires establishing and promoting quality assurance measures. Standardizing production processes and ensuring consistency in traditional medicines can build trust among consumers. In several studies, issues related to the quality of ATMs preparation were raised. Others consider them to be unsafe and question their efficacy due to their presentation and storage (Matsabisa et al., 2022).

Theme 3: ***Strengthen accessibility***

The study discovered the needs and preferences of buyers or consumers of traditional medicines. These include accessibility, safety of use, instructions on usage (labelling), testimonials from other users as proof of efficacy, readily packaged or ready mixed medicines.

What are alternative value chains for traditional medicines in South Africa? What is the role of marketing techniques and available value chains in the successful trading of traditional medicines?

The study was able to answer these questions effectively. All study participants provided common ways in which traditional medicines reached the consumer or buyer. Consumers mentioned mostly *"muthi"* shops or street vendors selling *"muthi"* while traditional healers mentioned walk-ins, the use of adverts and social media messaging application such as Facebook and WhatsApp.

Research question 2: What are the current marketing techniques suitable for traditional medicine?

Theme 1: ***Word of Mouth and Testimonials***

Given the reliance on word of mouth mentioned by respondents, creating a system for positive testimonials and experiences can serve as a powerful marketing tool. Encouraging satisfied customers to share their success stories can build trust and credibility. This is consistent with prior studies which showed that Word-of-Mouth (WOM) and satisfaction collectively influence loyalty, with brand trust as a mediating factor in marketing and consumer appeal in the traditional medicine sector (Oppong et al., 2021).

Theme 2: ***Digital Platforms and Online Presence***

Respondents expressed preferences for in-person purchases, but the study indicates an opportunity to expand the reach through digital platforms. Creating an online presence, utilizing social media, and implementing e-commerce strategies such as self-branding or the use of "influencers" could enhance accessibility for those facing geographical challenges (Saima & Altaf Khan, 2021; Kamis et al., 2017).

Research question 3: How can the identified marketing techniques be made effective?

Theme 1: ***Educational Campaigns***

Given the limited advertising observed in the study, educational campaigns become essential. Informing the public about the benefits, usage, and cultural significance of traditional medicine through various platforms can contribute to increased awareness and appeal (Catalán-Matamoros & Peñafiel-Saiz, 2019).

Theme 2: ***Alternative Value Chains***

The study suggests that traditional medicine has primarily been sold through traditional healers and *"muthi"* shops. Statistics indicate that the current number of African traditional medicine *("muthi")* shops are not available, yet these establishments contribute to the commercial scenery in numerous metropolitan centres across South Africa (Mothibe & Sibanda, 2019). Exploring alternative value chains, such as partnerships with pharmacies, wellness centres, or even incorporating traditional medicines into mainstream healthcare, can broaden the market reach and availability.

Theme 3: ***Collaboration with Healthcare Professionals***

Collaboration with healthcare professionals holds significant potential for integrating traditional medicine into the broader healthcare system. By forming partnerships with medical practitioners, traditional medicine can gain credibility and attract more individuals to consider its benefits. However, in South Africa, a novel and inclusive approach to the traditional medicine industry is needed. Historically, the practice and utilization of ATMs faced challenges due to their association

with witchcraft practices, leading to their prohibition from association with medical practitioners in 1953 (Abdullahi, 2011). However, efforts were made in 1982 to recognize ATMs within the allied health professions through the Associated Health Professions Act of 1982. This legislation established a licensing scheme for herbalists, chiropractors, osteopaths, and naturopaths (Freeman & Motsei, 1992).

Despite these advancements, communication primarily occurred between traditional healers and regulatory authorities, such as the Department of Health (DoH) or nature conservation entities like the Department of Agriculture, Forestry and Fisheries (DAFF) (Mander, Ntuli, Diedrichs & Mavundla, 2007). However, it is evident from this historical background that more collaboration is needed in this sector to facilitate the regulation and marketability of ATMs in the present day. According to Cook (2009), the number of traditional healers in South Africa in 2009 was estimated to be 500 to 100, 000 people in comparison to 77 doctors to a population of 100, 000. The potential benefits of traditional medicine in complementing modern healthcare systems and addressing the healthcare needs of diverse populations have become increasingly apparent in recent years. Fokunang et al. (2011) also notes a similar phenomenon in their publication on the integration of traditional medicines in the national health system of Cameroon.

Research question 4: What are the challenges faced by traditional medicine?

Theme 1: ***Cultural Sensitivity in Marketing***

Acknowledging the cultural significance of traditional medicine is crucial. Marketing strategies should be culturally sensitive, respecting traditions and beliefs to ensure that appeal is not compromised during promotional efforts. According to Mbongwa and Williams (2021), despite evolving times, cultural norms and ancestral guidance remain integral to both traditional healers and *"muthi"* traders. Conservation interventions and trade should be tailored to respect and accommodate these culturally significant beliefs. ATMs play a significant role in the healthcare of many individuals in diverse communities across South Africa, as it is deeply rooted in cultural heritage and societal practices (Mdhluli, 2022).

Theme 2: ***Lack of Standardization***

In contrast to Western medicines, traditional medicines often lack standardized formulations and scientific validation of their efficacy in treating known illnesses. The absence of standardized practices may pose a widespread challenge on acceptance and integration of traditional remedies into mainstream healthcare systems.

5.3 Conclusion

The findings suggest that traditional medicine in South Africa possesses untapped market potential. There is an opportunity to enhance marketability through strategic marketing approaches that address current gaps in advertising and accessibility. Diversifying marketing techniques, leveraging digital platforms, and exploring alternative value chains can contribute to the growth and appeal of traditional medicine among consumers. Despite its extensive heritage, research findings reveal that ATMs in South Africa encounter diverse obstacles. These challenges include a lack of widespread appeal, particularly among specific demographic segments, such as individuals aged 31 to 40 compared to those aged 20 to 30. Moreover, the value chains associated with ATMs face constraints, particularly concerning supply-demand dynamics. In addition, marketing efforts have proven ineffective in promoting the acceptance and utilization of ATMs. Notably, among the middle-aged demographic (31 to 40 years), there exists a stigma linked to the use of ATMs, often associated with spiritual practices or witchcraft. Enhanced appeal, optimal value chains, and effective marketing initiatives are essential for maximizing traditional medicine's potential and promoting its widespread acceptance and accessibility.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

This chapter gives recommendations based on the study findings and discussion and offers conclusions. The study brings forth a comprehensive understanding of the marketability of traditional medicine in South Africa. Delving into the dynamics of marketing strategies, consumer perceptions, and existing challenges, this chapter encapsulates the essence of the research journey.

6.2 Recommendations

The responses from participants indicate a strong cultural connection and reliance on traditional medicine, particularly among the younger demographic. While there is a demand for these products, challenges such as limited advertising and accessibility have been identified, suggesting untapped potential for broader market penetration. The respondents employ diverse strategies, including online consultations, adverts, word of mouth, and referrals, showcasing an adaptive approach to market their services.

6.3 Limitations of the study

Despite the valuable insights gained, it is crucial to acknowledge the limitations inherent in this study. The sample size, while diverse, might not fully capture the nuanced variations in traditional medicine practices across South Africa. Furthermore, the study's cross-sectional nature limits its ability to capture the dynamic and evolving nature of the market over time. Finally, the generalizability of findings may be constrained due to the regional and cultural variations within South Africa.

6.4 Overall implications

The findings suggest that traditional medicine in South Africa possesses untapped market potential. There is an opportunity to enhance marketability through strategic marketing approaches that address current gaps in advertising and accessibility. Diversifying marketing techniques, leveraging digital platforms, and exploring alternative value chains can contribute to the growth and appeal of traditional medicine among consumers. The findings suggest that traditional medicine entrepreneurs employ a combination of traditional and modern marketing techniques.

The success of these techniques is evident in the positive customer experiences and the reliance on word of mouth for promotion.

The use of digital platforms for consultations and advertising reflects an adaptation to contemporary consumer behaviours. The exploration of health practitioners' perspectives contributes valuable insights into the marketability of traditional medicine. The study highlights the nuanced nature of these practices within the healthcare sector and the necessity for careful consideration of diverse viewpoints. To enhance marketability, a tailored approach that considers collaboration, strategic marketing, and addressing concerns raised by health practitioners may be essential. The findings underscore the need for ongoing research and dialogue to navigate the successful integration of traditional medicine into contemporary healthcare systems.

6.5 Future research

It is recommended that future studies be conducted on a larger scale to ensure greater applicability and accuracy in representing the wider population. By expanding the sample size, researchers can enhance the generalizability of their findings and provide robust insights into the topic under investigation. Future studies could also focus on other regions of South Africa to get insights from the diverse cultural contexts that characterise the country.

6.6 Conclusion

The study's objectives have been met, providing valuable insights into the marketability, marketing techniques, and value chains for traditional medicine in South Africa. The findings pave way for strategic interventions and collaborative efforts to enhance the appeal and accessibility of traditional medicine in the market. In conclusion, the success of trading traditional medicine in South Africa requires a multifaceted approach. Combining a deep understanding of consumer needs, quality assurance, educational campaigns, online presence, alternative value chains, collaboration with healthcare professionals, and cultural sensitivity in marketing can collectively contribute to making traditional medicine more appealing and available to a wider consumer base. The journey to unlock the full potential of traditional medicine in South Africa requires a collective effort, blending traditional wisdom with contemporary insights, to create a healthcare landscape that is culturally sensitive, accessible, and appealing to a diverse consumer base.

7 References

Abah, J., Mashebe, P., & Denuga, D. (2015). Prospect of Integrating African Indigenous Knowledge Systems into the Teaching of Sciences in Africa. *American Journal of Educational Research, 3*(6), 668 - 673. htpps://doi.org/ 10.12691/education-3-6-1

Adenle, A. A. (2020). Assessment of solar energy technologies in Africa-opportunities and challenges in meeting the 2030 agenda and sustainable development goals. Energy Policy, *137*, 85. https://doi.org/10.1016/j.enpol.2019.111180

Akpan, E. E. (2022). Understanding the Rudiments of Research design and Methodology in Qualitative and Quantitative Researches. *International Journal of Advancement in Education, Management, Science and Technology*, 80.

Al Maktoum, S. B. (2024). Exploring teachers' experiences within the teacher evaluation process: A qualitative multi-case study. *Cogent Education, 11. 1-20.* https://doi.org/10.1080/2331186X.2023.2287931

Abdullahi, A. A. (2011). Trends and Challenges of Traditional Medicine in Africa. *African Journal of Traditional, Complementary and Alternative Medicines, 8*(5S), 115-123. https://doi.org/10.4314/ajtcam.v8i5S.5

Adams, R.J., Smart, P., & Huff, A.S. (2017) Shades of grey: Guidelines for Working with the Grey Literature in Systematic Reviews for Management and Organizational Studies. *International Journal of Management Reviews, 19*(4), 432-454. https://doi.org/10.1111/ijmr.12102

Amzat, J., Razum, O., Amzat, J., & Razum, O. (2018). Traditional medicine in Africa. Towards a Sociology of Health Discourse in Africa. In J.R. Amzat & O. Razum (Eds.). *Towards a Sociology of Health Discourse in Africa* (pp. 79-91). Springer.

Arji, G., Safdari, R., Rezaeizadeh, H., Abbassian, A., Mokhtaran, M., & Ayati, M. H. (2019). A Systematic Literature Review and Classification of Knowledge Discovery in Traditional Medicine. *Computer Methods and Programs in Biomedicine, 168,* 39-57. https://doi.org/10.1016/j.cmpb.2018.10.017

Asfaw, T. B., Esho, T. B., Bachheti, A., Bachheti, R. K., Pandey, D. P., & Husen, A. (2022). Exploring important herbs, shrubs, and trees for their traditional knowledge, chemical derivatives, and potential benefits. In A. Husen(Ed.) *Herbs, shrubs, and trees of potential medicinal benefits* (pp. 1-26). CRC Press.

Attah, A. F., Fagbemi, A. A., Olubiyi, O., Dada-Adegbola, H., Oluwadotun, A., Elujoba, A., & Babalola, C. P. (2021). Therapeutic Potentials of Antiviral Plants Used in Traditional African Medicine with COVID-19 in Focus: A Nigerian Perspective. *Frontiers in Pharmacology*, *12*,1-38. https://doi.org/10.3389/fphar.2021.596855

Battiste, M. (2013). *Decolonizing Education: Nourishing the learning spirit*. UBC Press.

Bhandari, P. (2023, January 28). Triangulation in Research-Guide, Types, Examples. Scribbr. https://www.scribbr.com/methodology/triangulation/

Bruchac, M. (2014). Indigenous Knowledge and Traditional Knowledge. In C. Smith (Ed.), *Encyclopedia of Global Archaelogy* (pp. 3814 - 3824). Springer.

Castagna, F., Centobelli, P., Cerchione, R., Esposito, E., Oropallo, E., & Passaro, R. (2020). Customer Knowledge Management in SMEs Facing Digital Transformation. *Sustainability, 12*(9), 1 - 15. https://doi.org/10.3390/su12093899

Catalán- Matamoros, D., & Peñafiel-Saiz, C. (2019). The Use of Traditional Media for Public Communication about Medicines: A Systematic Review of Characteristics and Outcomes. *Health Communications, 3*(4), 415-423. https://doi.org/ 10.1080/10410236.2017.1405485

Cock, I., Luwaca, N. & Van Vuuren, S. (2023). The Traditional Use of Southern African Medicinal Plants to Alleviate Fever and their Antipyretic Activities. *Journal of Ethnopharmacology, 303*, 1 - 19. https://doi.org/10.1016/j.jep.2022.115850

Cock, I., Ndlovu, N. & Van Vuuren, S. (2023). The Traditional Use of Southern African Medicinal Plants to Treat Oral Pathogens, and Studies into their Relevant Antimicrobial Properties. *South African Journal of Botany, 153*, 258 - 279. https://doi.org/10.1016/j.sajb.2023.01.003

Cock, I., Orchard, A., Nhlabathi, C., & Nxumalo, T. (2022). The Feasibility of Southern African Traditional Plant Therapies for Ophthalmic Use. *South African Journal of Botany, 148*, 360 - 378. https://doi.org/10.1016/j.sajb.2022.05.006

Cook, C. T. (2009). Sangomas: Problem or Solution for South Africa's Health Care System. *Journal of the National Medical Association, 101*(3), 261-265. https://doi.org/10.1016/S0027-9684(15)30855-5

Dalili, A., & Baheshtifar, M. (2018). Exploring the Benefits of Customer Relationship Management. *Science Arena Publications Speciality Journal of Knowledge Management, 3*(3), 10 - 16.

de Roubaix, M.(2016). The Decolonialisation of Medicine in South Africa: Threat or Opportunity? *SAMJ, 106*(2), 159 - 162. http://www.samj.org.za/index.php/samj/article/view/10371/7130

de Sousa Santos, B., 2007. Beyond Abyssal Thinking: From Global Lines to Ecologies of Knowledges. *Review, 30*(1), 45-89. https://www.jstor.org/stable/40241677

Elena, C. (2016). Social Media - A Strategy in Developing Customer Relationship Management. *Procedia Economics and Finance, 39(3).* 785 - 790. https://doi.org/10.1016/s2212-5671(16)30266-0

Eze, M.O., Ejike C.E.C.C, Ifeonu, P., Mignone, J., Udenigwe, C.C., & Uzoegwu, P.N.(2021). Mutual Pan-African Support Paradigm to Produce Scientific Evidence of Traditional Medical Practices for use Against COVID-19 and Emerging Pandemics. *Scientific African, 14*, 1 - 9. https://doi.org/10.1016/j.sciaf.2021.e01046

Fokunang, C.N, Ndikum V., Tabi, O.Y, Jiofack, R.B, Ngameni, B., Guedje, N.M, Tembe-Fokunang, E.A., Tomkins, P., Barkwan, S., Kechia, F., Asongalem, E., Ngoupayou. J., Torimiro, N.J., Gonsu, K.H., Sielinou, V., Ngadjui, B.T., Angwafor, F.Nkongmeneck, A., Abena, O.M…Kamsu-Kom, L. (2011). Traditional Medicine: Past, Present, and Future Research and Development Prospects and Integration in the National Health System of Cameroon. *African Journal of Traditional Complementary Alternative Medicines, 8(3)*:284–295. https://doi.org/ 10.4314/ajtcam.v8i3.65276

Grammatios, P., & Diamantis, A. (2008). A Useful Known and Unknown Views of the Father of Modern Medicine, Hippocrates and his Teacher Democritus. *Hell J Nucl Med., 11*(1), 2 - 4. https://pubmed.ncbi.nlm.nih.gov/18392218/

Gunjan, M., Naing, T. W., Saini, R. S., Ahmad, A., Naidu, J. R., & Kumar, I. (2015). Marketing Trends & Future Prospects of Herbal Medicine in the Treatment of Various Disease. *World Journal of Pharmaceutical Research, 4*(9), 132-155.

Gurib-Fakim, A. (2006). Medicinal Plants: Traditions of Yesterday and Drugs of Tomorrow. *Molecular Aspects of Medicine, 27*(1), 1-93. https://doi.org/10.1016/j.mam.2005.07.008

Hassan, R., Nawaz, A., Lashari, M., & Zafari, F. (2015). Effect of Customer Relationship Management on Customer Satisfaction. *Proceedia Economics and Finance, 23*, 563 - 567. https://doi.org/10.1016/S2212-5671(15)00513-4

Kasilo, O. M. J., Wambebe, C., Nikiema, J. B., & Nabyonga-Orem, J. (2019). Towards Universal Health Coverage: Advancing the Development and Use of Traditional Medicines in Africa. *BMJ global health, 4*(Suppl 9), 1-11. https://doi.org/10.1136/bmjgh-2019-001517

Khamis, S., Ang, L. & Welling, R. (2017). Self-Branding, 'Micro-Celebrity' and the Rise of Social Media Influencers, *Celebrity Studies, 8*(2), 191-208,. http://doi.org/10.1080/19392397.2016.1218292

Khan, M. S. A., & Ahmad, I. (2019). Herbal Medicine: Current Trends and Future Prospects. In M.S.A Khan, I. Ahmad & D. Chattopadhyay (Eds.) *New look to phytomedicine* (pp. 3-13). Academic Press.

Khosravi, A., & Hussin, A. (2016). Customer Knowledge Management: Development Stage and challenges. *Journal of Theoretical and Applied Information Technology, 91*(2), 264 - 274. https://www.jatit.org/volumes/Vol91No2/6Vol91No2.pdf

Khumalo, G., Van Wyk, B., Feng, Y., & Cock, I., 2022. A Review of the Traditional Use of Southern African Medicinal Plants for the Treatment of Inflammation and Inflammatory Pain. *Journal of Ethnopharmacology, 283*, 1 - 20. https://doi.org/10.1016/j.jep.2021.114436

Kiger, M.E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131, *Medical Teacher, 42*(8), 846-854. https://doi.org/10.1080/0142159X.2020.1755030

Kumar, V. (2017). Herbal Medicines: Overview on Regulations in India and South Africa. *World Journal of Pharmaceutical Research, 6*(8), 690-698. https://doi.org/10.20959/wjpr20178-9091

Louw, G. (2020). *Sangomas in South Africa's Modern-day Healthcare*. Adam Walters & Company.

Maharaj, V., Naidoo-Maharaj, D., Fouche, D. & Mianda, S., 2019. Are Scientists Barking up the Wrong Tree to "Scientifically Validate" Traditional Medicines? *South African Journal of Botany, 126*, 58 - 64. https://doi.org/10.1016/j.sajb.2019.06.010

Mander, M., Ntuli, I., Diedrichs, N., & Mavundla, K. (2007). Economics of the Traditional Medicine Trade in South Africa. *South African Health Review, 2007*(1). 189-196. https://journals.co.za/doi/epdf/10.10520/EJC35482

Matsabisa, M. G., Alexandre, K., Ibeji, C. U., Tripathy, S., Erukainure, O. L., Malatji, K., & Chabalala, H. P. (2022). In Vitro Study on Efficacy of PHELA, an African Traditional Drug against SARS-CoV-2. *Scientific Reports*, *12*(1), 1-12.

Matsabisa, M. G., Tripathy, S., Dassarma, B., Chabalala, H. P., & Mukherjee, P. K. (2022). African Traditional Herbal Medicine: Addressing Standardization and Quality Control Challenges for Product Development. *Evidence-Based Validation of Herbal Medicine, 2022,* 561-586. https://doi.org/10.1016/B978-0-323-85542-6.00027-5

Mbendana, D., Mamabolo, K., Truter, M., Kritzinger, Q., & Ndhlala, A.R.(2019). Practices at Herbal (*Muthi*) Markets in Gauteng, South Africa and their Impact on the Health of the Consumers: A Case Study of KwaMai-Mai and Marabastad Muthi Markets. *South Africa Journal of Botany, 126*, 30 - 39. https://doi.org/10.1016/j.sajb.2019.05.004

Mbongwa, N. S., Twine, W. C., & Williams, V. L. (2021). MedicinalPplant Cultivation: Beliefs and Perceptions of Traditional Healers and Muthi Traders in KwaZulu-Natal and Gauteng, South Africa. *South African Journal of Botany, 143*, 123-132. https://doi.org/10.1016/j.sajb.2021.07.019

Mdhluli, T.D. (2022). *An Examination of the Role of Traditional Medicine in Primary Health Care in Bushbuckridge Region, Mpumalanga Province, South Africa* [Doctoral dissertation, University of Venda]. National Institute for the Humanities and Social Sciences Repository. https://www.nihss.ac.za/node/627

Mothibe, M. E., & Sibanda, M. (2019). African traditional medicine: South African perspective. In C., Mordeniz (Ed.) *Traditional and Complementary Medicine* (pp. 1-27). IntechOpen.

Mountessou, B.Y.G, Tchamgoue, J., Mouafon, I.L, Green, I.R, Chunhary, M.I, & Kouam, S.F.(2023). High Potential of the Genus Allanblackia (Guttiferae): Phytochemistry, Pharmacology, and Traditional Uses over the Past Half-Century. *South Africa Journal of Botany, 153,* 321 - 335. https://doi.org/10.1016/j.sajb.2023.01.012

Mukherjee, P. K. (2019). *Quality control and evaluation of herbal drugs: Evaluating natural products and traditional medicine*. Elsevier.

Muneeb, A., & Shinwari, M. (2020). Customer Relation Management (CRM) and its Impact on Organizational Performance: A Case of Etisalat Telecommunication in Afganistan. *United International Journal for Research & Technology, 01*(04), 1 - 9. https://uijrt.com/articles/v1/i4/UIJRTV1I40001.pdf

Nair, J. & Van Staden, J. (2014). Traditional Usage, Phytochemistry and Pharmacology of the South African Medicinal Plant Boophone Disticha (L.f.) Herb. (Amaryllidaceae). *Journal of Ethnopharmacology, 151*, 12 - 26. https://doi.org/10.1016/j.jep2013.10.053

Narasimhan, S., & Chandanabhumma, P. (2021). A Scoping Review of Decolonization in Indigenous-Focused Health Education and Behavior Research. *Health Education & Behavior, 48*(3), 306 - 319. https://doi.org/10.1177/1090198121101009

Ndhlala, A., Stafford, G., Finnie J.F & Standen, J. (2011). The Urban Face of Traditional Medicine. *South African Journal of Botany, 77*(4), 830-843. https://doi.org/10.1016/j.sajb.2011.09.002

Ndubisi, E., & Kanu, I. (2021). Innovative Trends in African Traditional Medicine. *EKPOMA Review, 8*, 45 - 63. https://acjol.org/index.php/ekpoma/article/view/2072/1971

Nkwadi, P. (2021). Knowledge, perceptions and responses to symptoms of Cervical Cancer: The views of African Women and Traditional Healers from Rural Areas in South Africa [Doctoral dissertation, University of Johannesburg]. https://ujcontent.uj.ac.za/esploro/outputs/9915306707691

Khosravi, A., & Hussin, A. (2016). Customer Knowledge Management: Development Stage and challenges. *Journal of Theoretical and Applied Information Technology, 91*(2), 264 - 274. https://www.jatit.org/volumes/Vol91No2/6Vol91No2.pdf

Odeh, G., & Otitolaiye, C.(2022). Decolonising African Medicines and Health System: Towards Post COVID19 Continental Agenda. *Caliphate Journal of Science & Technology, 4*(1), 46 - 53. https://doi.org/10.4314/cajost.v4i1.7

Omokhua-Uyi, A. & Van Staden, J., 2021. Natural Product Remedies for COVID-19: A Focus on Safety. *South African Journal of Botany, 139*, 386 - 398. https://doi.org/10.1016/j.sajb.2021.03.012

Oppong, P. K., Gyawu, A., & Yawson, C. A. (2021). The Relationship between Word-of-Mouth, Satisfaction, Trust and Loyalty in Herbal Medicine Industry. *Economics and Business Quarterly Reviews, 4*(2), 46-58. https://www.asianinstituteofresearch.org/

Orman, E., Bekoe, S.O., Jato, J., Spiegler, V., Asare-Nkansah, S., Agyare, C., Hensel, A., & Bekoe, E.O.(2022). Quality Assessment of African Herbal Medicine: A Systematic Review and the Way Forward. *Fitoterapia, 162*,1 - 19. https://doi.org/10.1016/j.fitote.2022.105287

Ozioma, E. O. J., & Chinwe, O. A. N. (2019). Herbal Medicines in African Traditional Medicine. *Herbal medicine, 10*, 191-214. https://doi.org/10.5772/intechopen.80348

Quinn, G. A., Banat, A. M., Abdelhameed, A. M., & Banat, I. M. (2020). Streptomyces fromTraditional Medicine: Sources of New Innovations in Antibiotic Discovery. *Journal of medical microbiology, 69*(8), 1040-1048. https://doi.org/10.1099/jmm.0.001232

Rasethe, M. T., Semenya, S. S., & Maroyi, A. (2019). MedicinalPplants Traded in Informal Herbal Medicine Markets of the Limpopo Province, South Africa. *Evidence-Based Complementary and Alternative Medicine*, 2019, 1-12. https://doi.org/10.1155/2019/2609532

Sharifi, M., Sanayei, A., & Ansari, A. (2022). Designing Customer Knowledge Management Model to Create Value in Online Business: A Case Study of Electronic Retailers. *Marketing Science and Technology Journal*, *1*(1), 115 - 142. https://www.mstj.net/article_251207_9a464d553e23f90f051e86ed6823ce5b.pdf

Sinyolo, S., Mudhara, M., & Wale, E. (2019). The Role of Social Grants on Commercialization Among Smallholder Farmers in South Africa: Evidence from a Continuous Treatment Approach. *Agribusiness, 35*(3), 457-470. https://doi.org/10.1002/agr.21601

Sivasankari, B., Anandharaj, M., & Gunasekaran, P. (2014). An Ethnobotanical Study of Indigenous Knowledge on Medical Plants Used by the Village Peoples of Thoppampatti, Dindigul District, Tamilnadu, India. *Journal of Ethnopharmacology, 153*(2), 408 - 423. https://doi.org/10.1016/j.jep.2014.02.040

Street, R., Smith, M., Moshabela, M., Shezi, B., Webster, C., & Falkenberg, T.(2018). Traditional Health Practitioners and Sustainable Development: a Case Study in South Africa. *Public Health, 165*, 1 - 5. https://doi.org/10.1016/j.puhe.2018.07.021

Van Rooyen, D., Pretorius, B., Tembani, N., & Ham, W. (2015). Allopathic and traditional health practioners'collaboration. *Curationis, 38*(2), 1 10. https://doi.org/10.4102/curationis.v38i2.1495

van Vuuren, S., & Frank, L. (2020). Review: Southern African Medicinal Plants Used as Blood Purifiers. *Journal of Ethnopharmacology*, *249*,1 - 24. https://doi.org/10.1016/j.jep.2019.112434

Van Vuuren, S., Motlhatlego, K., & Netshia, V.(2022). Traditionally Used Polyherbals in a Southern African Therapeutic Context. *Journal of Ethnopharmacology*, *288*, 1 - 28. https://doi.org/10.1016/j.jep.2022.114977

Van Wyk, B. E. (2020). A family-level floristic inventory and analysis of medicinal plants used in Traditional African Medicine. *Journal of Ethnopharmacology, 249*, 1-15. https://doi.org/10.1016/j.jep.2019.112351

van Wyk, A. & Prinsloo, G., 2020. Health, Safety and Quality Concerns of Plant-Based Traditional Medicines and Herbal Remedies. *South African Journal of Botany,133*, 54 - 62. https://doi.org/10.1016/j.sajb.2020.06.031

Van Wyk, B.(2011). The Potential of South African Plants in the Development of New Medicine Products. *South African Journal of Botany*, *Volume 77*(4), 812 - 829. https://doi.org/10.1016/j.sajb.2011.08.011

Williams, V., Burness, A., Wajtasik, E., & Byrne, M.(2021). Dataset, including a photo-guide, of alien plants sold in traditional medicine markets and healthcare outlets in three South African cities, specifically by traders of Indian, West African, East African, and Chinese origin. *Data in Brief, 38*, 1 - 42. https://doi.org/10.1016/j.dib.2021.107395

Williams, V. L., Victor, J. E., & Crouch, N. R. (2013). Red Listed Medicinal Plants of South Africa: Status, Trends, and Assessment Challenges. South African *Journal of Botany, 86*, 23-35. https://doi.org/10.1016/j.sajb.2013.01.006

Williams, V., & Whiting, M.(2016). A Picture of Health? Animal Use and the Faraday Traditional Medicine Market, South Africa. *Journal of Ethnopharmacology, 179*,265 - 273. https://doi.org/10.1016/j.jep.2015.12.024

Williams, V., Wojtasik, E., & Byrne, M. (2021). A Chronicle of Alien Medicinal Plants Used as Traditional Medicine in South Africa, and their Status as Invasive Species. *South African Journal of Botany*,*142*,63 - 72. https://doi.org/10.1016/j.sajb.2021.05.027

Williams, V., Wojtasik, E., & Witkowski, E. (2011). Ethno-Ecological Evidence for Hydnora Abyssinica Occurring in Johannesburg and Durban Traditional Medicine Markets. *South African Journal of Botany, 77,* 268 - 279. https://doi.org/10.1016/j.sajb.2010.08.005

World Health Organisation. (2013, June 25). A Global Brief on Hypertension: World Health Day. 2013. WHO. https://www.who.int/publications/i/item/a-global-brief-on-hypertension-silent-killer-global-public-health-crisis-world-health-day-2013

Xego, S., Kambizi, L., & Nchu, F. (2021). Recognising the impact of traditional herbal medicine in managing cancer: The South African context. *Journal of Medicinal Plants for Economic Development, 5*(1), 1 - 8. https://doi.org/10.4102/jomped.v5i1.121

Xiong, Y., Gao, M., van Duijn, B., Choi, H., van Horssen, F., & Wang, M. (2021). International Policies and Challenges on the Legalization of Traditional Medicine/Herbal Medicines in the Fight aAainst COVID-19. *Pharmacological Research, 166*, pp. 1 - 8. https://doi.org/10.1016/j.phrs.2021.105472

Yao, R., He, C., & Xiao, P. (2021). 'Food and Medicine Continuum' in the East and West: Old Tradition and Current Regulation. *Chinese Herbal Medicines, Volume 15*(1), 6 - 14. https://doi.org/10.1016/j.chmed.2022.12.002