



University of Venda

**Perceptions of cannabis entrepreneurs on South Africa's cannabis  
masterplan: a case study of Limpopo Province**

**A dissertation submitted in fulfilment of the requirements.**

**For the degree of master's in business management,**

**In the Department of Business Management**

**By**

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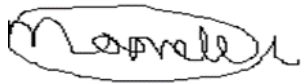
**Co-Supervisor: Ms N.T Khohomela**

**2024**

## DECLARATION OF WORK AND COPYRIGHT

This formal declaration, written by Mulalo Rejoyce Maumela, presents the dissertation titled **"Perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan: a case study of Limpopo Province, South Africa."** The dissertation was completed as a requirement for the Master of Commerce in Business Management program at the University of Venda. It is important to emphasize that this work is entirely original and has not been previously submitted to any other higher education institution. Furthermore, I confirm that all sources referenced in this dissertation have been appropriately acknowledged and cited. This is accomplished by including a comprehensive list of references, ensuring that the contributions of other scholars and researchers are duly recognised. By adhering to these ethical guidelines, I aim to uphold the principles of academic integrity and intellectual honesty.

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DATE:08. April 24

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## **ABSTRACT**

This study delves into the emerging discourse surrounding the decriminalisation and commercialisation of cannabis, particularly within the context of South Africa's Cannabis Master Plan. With global shifts toward legalisation for both medicinal and recreational purposes, understanding the perceptions and challenges faced by cannabis entrepreneurs becomes paramount. In the Limpopo Province, like many other regions of South Africa, one of its strategic plans is to promote entrepreneurship and small-scale businesses, thus there is a need to interrogate the cannabis masterplan of the country. The main objective of the study was, therefore, to explore the perceptions of cannabis entrepreneurs on South Africa's cannabis Master Plan. In this study a qualitative research method was used, and participants were selected using non-probability snowball sampling. Data was collected using a semi-structured interview guide through face-to-face interviews. An audio recorder and a notebook were used to capture the responses of the participants and data was collected from 16 cannabis entrepreneurs in Limpopo Province, South Africa. The adequate number of the sample size was guided by the point of saturation. The collected data was transcribed using Microsoft Word version 26 and analysed using ATLAS.ti.23 and the results found were used to make conclusions and recommendations of the study. The research findings highlight challenges faced by cannabis entrepreneurs, particularly, compliance with the country's laws and regulatory bodies. For instance, to obtain a cannabis operating license, one is expected to pay a minimum of R25 000 and build a cannabis facility with high security and a sensory detector which is estimated could be over a million rand. The participants emphasised the need for unrestricted cannabis commercialisation, citing its benefits, such as income generation, economic growth and employment creation amongst others; also, entrepreneurs face issues with society not being informed about cannabis' potential benefits. One of the recommendations made from this study is that policymakers and industry stakeholders should foster a sustainable, inclusive cannabis industry through full implementation of the Cannabis Master plan.

**Keywords:** Cannabis Masterplan, commercialisation, entrepreneurs, medicinal, recreational

## ACRONYMS

DALRRD: Department of Agriculture, Land Reform and Rural Development

NDH: National Department of Health

SDG: Sustainable Development Goals

NGHC: North Gauteng High Court

SAPS: South African Police Service

NCM: National Cannabis Masterplan

DTA: Drugs Trafficking Act

SAHPRA: South African Health Products Regulatory Authority

CDC: Cannabis Development Council

THC: Tetrahydrocannabinol

CBD: Cannabidiol

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

Worldwide, there have been calls for the legalisation of cannabis farming and its trading commercialisation (Buxton, Chinery-Hesse, and Tinasti, 2020). The relaxation of regulations on cannabis usage in countries, like Canada, has undoubtedly sparked a global movement towards the legalisation of cannabis farming and trading. Advocates of this notion argue that the criminalisation of commercial cannabis farming and marketing has failed to attain the desired results, however, these views have been opposed by those who benefit from the illicit cannabis growing and trading (Ferrara, 2020).

South Africa has drafted the Cannabis Master Plan for the commercialisation of cannabis for recreational and medicinal purposes (Fischer, 2020). The above plan has made its way to Parliament, and this move is considered a significant milestone in the country's journey to decriminalising various uses of cannabis. The National Cannabis Masterplan was necessitated by Cabinet's realisation that decriminalising cannabis for recreational and medicinal value would propel the country's economy (Kitchen, Kabba, and Fang, 2022). In addition, the drafting of the plan is an admission that the commercialisation of cannabis could make South African government to realise some of its sustainable development goals (SDGs) (Van Hout and Chimbga, 2020).

The conflicting arguments among scientists, economists, traditional leaders, parents, and public health officials make the cannabis masterplan an interesting subject area for a variety of public policies and public administration concepts, thus, it is essential to understand the perceptions of entrepreneurs on the cannabis masterplan in South Africa (Vermeulen, Swarthout, Alexander, Ginsburg, Pritchett, White and Fox, 2020). This study seeks to explore the civilian culture that community partners have on social construction and the relationship that public attitudes on the implementation of the proposed cannabis masterplan. Civilian culture in this context refers to the social standing of community partners within the wider community as measured by the general community response (Vermeulen et al., 2020).

The economic benefits of commercialising cannabis in poor countries are undeniable. For instance, medicinal cannabis sales generated more than \$135 million in taxation to the Colorado government in the year 2015 alone. In Africa, Malawi and Zimbabwe are the latest countries to decriminalise the farming and trading of cannabis, with several countries considering a similar move. According to Manu, Douglas, Ntsaba, and Tarkang (2021) the global market for medical cannabis is currently estimated at \$150 billion and could reach \$272 billion in 2028, hence, African countries should consider tapping into the market to support their growing economies.

The South African cannabis masterplan could potentially result in a decrease in unemployment. To ensure poor countries benefit from the initiative, the generated tax revenue could be used in fighting unemployment and substance abuse (Chakraborty, Doremus, and Stith, 2021). Also, considering the slow pace of industrialisation amid increasing population and pressure on natural resources, there is a need for developing countries to find innovative sources of income generation for sustainable development, and cannabis' legalisation could be considered as a possible source.

One very relevant question at this stage is whether “civilian culture,” should be the only determining factor in the commercialisation of cannabis. Connected to this question is the observation that some scholars have strengthened the empirical relationship between social construction, economic development, and medicinal benefits of cannabis (Chakraborty et al., 2021). The existence of health and economic benefits has motivated the ongoing debate among scientists and proponents of the commercialisation of cannabis. Various scholars argue that the impact of the commercialisation of cannabis may have a profound effect on adolescent risk behaviours and distort the cultural values of Africans (Connor, Stjepanović, Le Foll, Hoch, Budney and Hall, 2021). The purpose of the proposed study is to examine the perceptions of cannabis entrepreneurs on the proposed cannabis masterplan (Connor et al., 2021).

## **1.2 Statement of the Research Problem**

Several countries are considering decriminalising cannabis for recreational and medicinal purposes (Hughes, Wiessing, Don Des and Griffiths, 2018). It is accepted that the commercialisation of cannabis has economic and health benefits, however, the negative impact of commercialisation of cannabis on social development and the

health of persons cannot be overlooked (Hughes et al., 2018, Hall and Lyskey, 2020). It is crucial, therefore, to explore the perceived impact of the cannabis masterplan across cultures. As this unfolds, efforts should be made to understand the benefits and challenges faced by independent entrepreneurs, particularly in the context of cannabis masterplan implementation. The masterplan emphasizes the need for an inclusive approach; however, other small-scale independent entrepreneurs are still struggling with certain sections of the plan. This is in addition to other obstacles such as what the masterplan calls “the extensive list of quality control measures” which are so tedious and meticulously designed to ensure that a small-scale farmer, hobbyist, or rural entrepreneur will not have the necessary resources and expertise to legalise their operations/trade (South Africa Department of Agriculture, 2021).

The cornerstone of the problem that this study intends to address is tied to the fact that there are ‘high barriers’ that prevent potential and existing entrepreneurs and other non-corporate stakeholders from legally entering the cannabis industry. Noting that in the Limpopo Province, like many other regions, one of its strategic plans is to promote entrepreneurship and small-scale businesses, there is need to explore issues concerning the introduction of the cannabis masterplan. There have been several efforts to clarify the masterplan, despite this, several communities have not been able to build an understanding of the masterplan’s implications for independent businesses. It is imperative to do this as the answers to these questions will help to craft strategies for a favourable business environment, for the cannabis trade.

### **1.3 Aims and Objectives of the study.**

This study explored the **perceptions of cannabis entrepreneurs on South Africa’s cannabis masterplan** with reference to the Limpopo Province, South Africa. Specific objectives for the work were to:

- a) Determine the challenges faced by entrepreneurs in commercialising cannabis.
- b) To analyse cannabis’ commercialisation benefits in the Masterplan; and
- c) To recommend strategies, and procedures for facilitating the commercialisation of cannabis in South Africa.

## 1.4 Research Questions

- a) What are the challenges faced by entrepreneurs in commercialising trade in cannabis?
- b) What is the cannabis' commercialisation benefits in the Masterplan?
- c) What are the strategies, and procedures for facilitating the commercialisation of cannabis in South Africa?

## 1.5 Significance of the study

In its current state, the cannabis industry is estimated to be valued at around R28 billion in South Africa (Cheng et al., 2018). According to the Nation Cannabis Masterplan, an exact value of the net-worth of this industry is difficult to ascertain because the bulk of the sector operate underground, and its products are mainly traded on the black market. The implications of this admission in the Nation Cannabis Master plan are blatantly a concession that there is, currently, a vast number of entrepreneurs in South Africa who serve the more than 3.5 million recreational users of cannabis by cultivating, transporting, and trading in cannabis (Pisanti and Bifulco, 2019). These small-scale entrepreneurs and traders have been able to operate even through the prohibitionist legislative atmosphere and the harsh law enforcement position on cannabis which was until now classified as a 'controlled' or 'prohibited' substance. It is estimated that there are at least 900 000 small scale cannabis entrepreneurs in South Africa (Anywar, Esezah and Tugume, 2022).

This study is further justified by the fact that the Cannabis Masterplan has been recently drafted and is not in its final state. This means that more critical literature on these issues may help to better inform policy makers and assist in the ongoing shaping of the plan and processes (Anywar et al., 2022). There is room, therefore, before the final legislation is approved and adopted, for researchers to use scholarly arguments to influence the Plan's outcome.

The non-academic structuring of the cannabis masterplan which provides no references for assertions made in the document is also another justification for more scholarly input to challenge the assumptions and premise upon which the document is founded. The document not providing a background of the research/investigative work or processes it is based upon, makes the facts it postulates, questionable and

subsequently throws doubts on its conclusions. In plain language, any person armed with a router and google search engines could have written this National Cannabis Masterplan!!

## 1.6 Definition of key terminologies

This section focuses on definitions of key terminologies used in this study, in line with existing literature.

- a) **Cannabis Masterplan** refers to the document developed by the Department of Agriculture and Land Reform to help guide the growth of the cannabis industry in South Africa (South Africa Department of Agriculture, 2021)
- b) **Cannabis entrepreneurs** are businesspeople involved in any sector of the chain of cannabis' production and trade, for the purpose of generating income/profit (South Africa Department of Agriculture, 2021)
- c) **Drug Act** refers specifically to the Drug and Drug Trafficking Act 140 of 1992.
- d) **Medicines Act** refers specifically to the Medicines and Related Substances Act 101 of 1965 (Medicines Act).

## 1.7 Delimitations of the study

The study focuses on exploring perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan. The target participants of the study include cannabis entrepreneurs.

## 1.8 Preliminary Literature Review

### 1.8.1 Challenges of commercialising cannabis as perceived by a diverse range of stakeholders.

The commercialisation of cannabis has been met with a myriad of challenges, as perceived by a diverse range of stakeholders. These challenges span regulatory, social, economic, and health-related dimensions, reflecting the complex nature of the cannabis industry.

#### 1.8.1.1 Cannabis production for commercial products.

A study conducted by Smith, Powell, Mungeam, & Emmons (2019) in the United States of America (USA), Oregon focused on how stakeholders perceived cannabis production in southern Oregon. The study found that Oregon had authorized cannabis cultivation for adult use. Cannabis production has significantly increased over the agricultural landscape of southern Oregon since it became legal. In the Rogue Valley of southern Oregon, 314 licensed recreational cannabis growers coexist with orchards, vineyards, vegetable farms, seed businesses, and ranches in a shifting agricultural environment. Using the exploratory qualitative study, the authors discovered that stakeholders listed - environmental consequences, land use legislation, agricultural best practices, water resources, financial opportunities, resource competition, and a changing cultural landscape - as issues in need of additional research (Smith et al., 2019).

#### **1.8.1.2 Federal restrictions on cannabis**

A study conducted in the United States revealed that despite the legalisation of recreational cannabis sales in four states and the District of Columbia, it remains illegal under Federal Law (Moscow and Felz, 2015). This has had political implications on the federal government, as the federal statutory framework prohibits the use and sale of cannabis. Additionally, the issue of banking the revenue generated from marijuana sales arises due to federal forfeiture regulations, which grant the United States government legal entitlement to all the profits.

Another layer of complexity around cannabis cultivation and delivery is represented by federal cannabis prohibitions in New Zealand (Fischer et al., 2020). For example, banks are not allowed to take money from the marijuana industry since it is illegal at the federal level (Fischer, 2020). That poses a risk for such federally sponsored institutions, losing their funding by doing any form of research or education linked with cannabis production. As a result, the deposit of money from cannabis poses a risk for the doing of the banking, and for the banks themselves. Horgan and Kudavidanage (2020) further imply that information from extension research and instruction has been previously used by entrepreneurs to raise production techniques and internalisation of best management practices (Horgan and Kudavidanage, 2020, Fischer, 2020).

In South Africa the cannabis masterplan is fundamentally tied to the fact that there are 'high barriers' that prevent small scale farmers, rural entrepreneurs, and other non-

corporate stakeholders from legally entering the cannabis industry (Department of Agriculture, 2021). This includes the fact that it could cost an estimated R25 000 \$1,318.87 (USD) to obtain a licence to grow and trade in cannabis. There are also the infrastructure demands for the production processes which require exorbitant sums of money to meet the standards for facilities that grow cannabis; altogether, it is estimated that one may need to have an actual capital of more than R6 million to meet all the necessary demands of the current legislation framework. Another obstacle small-scale farmers have to navigate is the restriction that prohibits anyone with a criminal record or any form of drug-related offence from applying for licence. This completely disqualifies many of the small-scale farmers and rural cannabis entrepreneurs who have incurred long lists of criminal offences and records due to the harassment from the law enforcement agents over the years (Department of Agriculture, 2021).

### **1.8.2 Cannabis commercialisation benefits**

Cannabis commercialisation, referring to the legal and regulated cultivation, distribution, and sale of cannabis products, offers several potential benefits across various sectors. It is important to note that the benefits may vary depending on the specific regulations and policies in place in different regions. Below is a summary of some potential benefits associated with cannabis commercialisation:

#### **1.8.2.1 Emerging cannabis markets**

With the developing cannabis industries come potential threats and opportunities (Stoa, 2017). Opportunities in the industry include enhanced cash flows to a community, increased property values, formation of large-scale farming operations, and the creation of cannabis appellations (sort of like a geographical indication, legally defined and protected, to identify the source of crops grown). A threat, however, can be created in the form of competition for limited natural resources (Vana, 2015). It was therefore concurred by several scholars that the increased use of cannabis for recreation was an indicator of a market that was more than thriving, growing in the demand and supply of smoking-grade cannabis (Steinmetz and kohek, 2022).

#### **1.8.2.2 Income generation**

A study done earlier on in Lesotho Botsoapa revealed that rural communities are still having to grapple with significant social and economic difficulties, which include one

of the highest HIV/AIDS prevalence rates in the world (UNAIDS 2006; Bloomer, 2009). The poor in this small southern African country of Lesotho have found lifelines in the form of illegally grown cannabis to earn cash from their meagre agricultural resources. The researchers found that income from cannabis is very fundamental to enabling diversification of both economic and livelihood aspects in Botsoapa.

### **1.8.2.3 Cannabis effects for recreational purpose**

In Nigeria, Uyo, findings from a study revealed that cannabis is the most commonly used illicit drug, with a lifetime prevalence of 6.6% among adults (Nelson, 2018); the author reports that 36.2% of persons seeking drug addiction therapy use cannabis. The inclination for repressive drug laws in Nigeria is motivated by worries about the health and social effects of cannabis usage, and law enforcement operations primarily focus on the cultivation and distribution of cannabis. Abatan and Assanvo (2023) argue that cannabis use is implicated in criminal activities, armed robberies, and violence.

1.8.3 Strategies, and procedures for facilitating the commercialisation of cannabis in South Africa.

#### **1.8.3.1 Cannabis policing history and Shift in Legislative Position**

One of the most recent cannabis decriminalisation countries is South Africa, where the Supreme Court declared that private cannabis cultivation, possession, and use are legal activities (Mogoro and Odeku, 2020). In a private environment, the court permitted cannabis growth and use, but not in a public context. Historically cannabis was first domesticated in the 1700s for use as a fiber, food, and medicine. Using a qualitative research approach, the author narrated that, cannabis was seen as a harmful drug or substance in South Africa as early as 1928. As a result, the Medicine, Dental and Pharmacy Act 13 of 1928 was passed with the specific intention of restricting the use of substances, like cannabis (Mogoro and Odeku, 2020)

#### **1.8.3.2 Western Cape High Court ruling**

On the 31st of March 2017, the Western Cape High Court made a landmark ruling in which it found that enforcement and policing practices/ implementation of the Drugs Trafficking Act (140 of 1992) have oftentimes led to violations of constitutionally protected rights, such as, the right to privacy.

### **1.8.3.3 North Gauteng High Court Case**

Subsequent to the ruling by the Western Provincial High Court, the North Gauteng High Court (NGHC) heard the case famously known as the - Trial of the plant - which involved the defendants Myrtle Clark and Julian Strobbs (affectionately known as the 'dagga couple'). The two defendants successfully argued their right to use cannabis.

### **1.8.3.4 Constitutional Court ruling**

Emeziem (2019) takes it further to note that the most landmark decision of the courts was by the Constitution Court of South Africa, the highest court in the land. The Constitutional Court threw out an appeal and effectively decriminalised smoking cannabis at home in South Africa. This ruling along with previous discussed court rulings is what fundamentally set off the change of policy stance and the beginning of the changing of the Drug Act and the Medicines Act which eventually culminated in the development of the National Cannabis Masterplan amongst other things (Emeziem, 2019).

## **1.9 THE CANNABIS MASTERPLAN.**

### **1.9.1. Purpose and objectives of the Master Plan**

In its entirety, the Master Plan aims to help grow the cannabis industry in a way that will help South Africa develop its economy and create job. By achieving this objective, it is expected that jobs will be created, and subsequently rural development and poverty alleviation will be dealt with.

The Master Plan sets the following objectives to be to establish an inclusive, sustainable and globally competitive cannabis industry in South Africa; increase volumes and variety of cannabis products destined for both local and export markets; establish and increase the capacity of South African entrepreneurs to produce marijuana and hemp; create opportunities for the creation of small- and medium-sized enterprises across the cannabis value chain; increase investment into research and technology development to support increased production, productivity, and competitiveness of the cannabis industry; establish and increase the manufacturing capacity of the South African cannabis industry and designate cannabis and hemp products with the designated local content within the legislative framework

### **1.9.2 Summary of the cannabis masterplan.**

The National Cannabis Master Plan for South Africa offers a comprehensive and progressive strategy for regulating cannabis, emphasizing economic growth, public well-being, social fairness, and global cooperation. By implementing this plan, South Africa anticipates substantial contributions to the sustainable advancement of its cannabis industry. This initial framework can be customised to align with the unique circumstances and legal requirements of South Africa. The Masterplan details status of global cannabis industry and current status of south African cannabis industry, Implementation plan, challenges facing the south African cannabis industry and implementation and monitoring structures in relation to legal cannabis industry.

### **1.10 Conceptual Framework**

A researcher's conceptual framework consists of written theories and actual ideas regarding a phenomenon under discussion (Kivunja, 2018). Some concepts which were reviewed and applied during the conducting of this research were – entrepreneurship, land uses currently, existing knowledge of farming, established procurement processes and start-up capital. These concepts are what may separate the existing entrepreneurs from those who have never farmed cannabis before (Clayton et al., 2021), however, there are also other factors which affect both entrepreneurs. These may include the capital, trainings, land, and supply routes which according to the cannabis Masterplan the government plans to provide to both category of entrepreneurs.

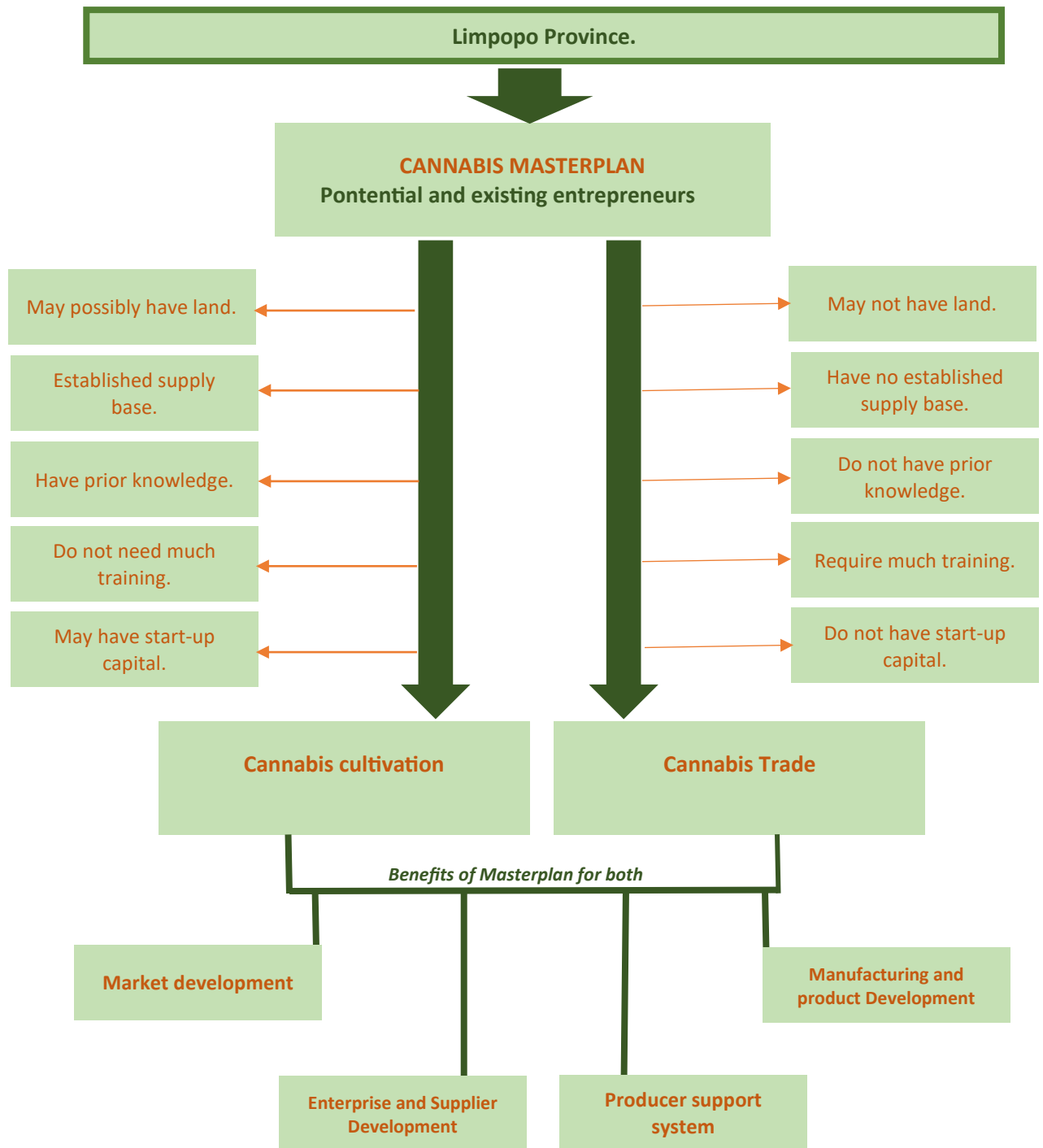
#### **Conceptual Framework overview**

The diagram presented in Figure 1 (conceptual framework) establishes a theoretical structure that serves as a fundamental guide for comprehending and examining entrepreneurs' perspectives on the commercialisation of cannabis within the framework of the Masterplan. This framework offers a systematic method for organising, implementing, and interpreting research outcomes, thereby enabling a more profound understanding of the complexities surrounding this emerging sector. At its essence, the conceptual framework provides a theoretical foundation that elucidates the connections among various critical factors relevant to cannabis commercialisation. These factors include Cannabis cultivation, Cannabis trade,

Market development, Manufacturing and product development, Enterprise and supplier development, and Producer support systems, which also depict the current status of potential and existing cannabis entrepreneurs.

Each component within the framework plays a pivotal role in shaping the landscape of cannabis entrepreneurship. Cannabis cultivation involves the cultivation methods and strategies utilised in growing cannabis plants, which are essential to the industry. Cannabis trade encompasses the buying and selling of cannabis products, along with the regulations governing their distribution and sale. Market development focuses on the tactics and programs aimed at broadening the consumer base and increasing market share for cannabis products. Manufacturing and product development concentrate on the procedures involved in converting raw cannabis materials into marketable products, including product innovation and quality control measures (Department of Agriculture, 2021).

Enterprise and supplier development encompass the promotion and sustainability of businesses related to cannabis, with a focus on supporting small-scale entrepreneurs and fostering partnerships within the supply chain. Producer support systems, on the other hand, involve providing resources, guidance, and infrastructure to facilitate the success of cannabis producers, including access to financing and technical assistance (Department of Agriculture, 2021). By outlining these fundamental aspects and their interconnectedness, the conceptual framework serves as a guide for researchers to explore the perspectives and experiences of both aspiring and established entrepreneurs in the cannabis industry. It acts as a roadmap for investigating how these stakeholders perceive and navigate the various challenges and opportunities within the commercialisation landscape, ultimately leading to a comprehensive understanding of the factors that shape the trajectory of the cannabis market. Essentially, the conceptual framework not only provides a structured approach to the research process but also offers valuable insights into the multifaceted nature of cannabis entrepreneurship. This, in turn, informs policy decisions and strategic interventions aimed at fostering sustainable growth and development within this rapidly expanding industry. On the next page is the conceptual framework structure:



**Figure 1:** shows a conceptual link between perceptions of cannabis entrepreneurs on the cannabis' commercialisation's Masterplan and the follow-up objectives.

**Source:** Researcher's own construct

## 1.11: Research methodology

This chapter outlines the methodology employed to investigate the perceptions of cannabis entrepreneurs in Limpopo Province regarding South Africa's cannabis Masterplan. The rationale for selecting the chosen methods and the overall research design is discussed to explain the process.

### 1.11.1 The research area



**Figure 2** Limpopo Province: Overview Contacts Map Resources.

Source: [www.limpopo.gov.za](http://www.limpopo.gov.za)

The study was conducted in the Limpopo Province of South Africa and is in the country's far north. The province's western and northern boundaries are formed by the Limpopo River, hence, the name of the province. Polokwane serves as the province's capital and largest city, while Lebogakgomo is home to the Provincial Legislature. The purpose of the study was to explore the perceptions of cannabis entrepreneurs on South Africa's cannabis Masterplan. It was necessary to conduct the study in Limpopo Province since in most of its districts, farming is one of the dominant forms of entrepreneurship. Understanding the perception of cannabis

potential entrepreneurs, therefore, was relevant to this study, as they will get opportunity to clarify issues which would then accelerate the cultivating of cannabis for commercial use, in line with regulations.

### **1.11.2 Research paradigm**

A research paradigm is therefore a set of basic assumptions in the sense of assumptions the researchers make to guide them on what to look into and how to interpret the results (Kivunja, and Ahmed, 2017). In essence, research is based on the 'scientific method' maybe positivism, post-positivism, or constructivist; this study is based on a constructivist paradigm. The qualitative research approach is related to the constructivism philosophical paradigm. This is based on the paradigm that the understanding of a phenomenon under study is through the experiences or perspectives of participants employing the numerous data collection techniques (Renée, Pryce, and Walsh, 2014). The participants constructed meanings from their experiences. Constructivists also like qualitative researchers argue that reality is entirely subjective because it is based on the individuals' perspectives and hence it is multiple or varied.

In consequence, the meaning in the lives of people was produced out of interacting with others in social and cultural contexts (Kumatongo and Muzata, 2021). The researcher judged what was said to determine what the actual facts are in the context of the research endeavor and to know the actual state of the subject under study. From the findings of the study, tentative and legitimate conclusions were then drawn.

### **1.11.3 Research Approach/ Strategy**

Research approach refers to plans and procedures which broadly outline the assumptions of how certain research types should apply methods in data collection, analysis, and interpretation (Tanyanyiwa and Kanyepi, 2015). The researcher chose to follow a qualitative approach because of the limited number of potential participants for this sort of study. Cannabis has been illegal for long time, hence, most of the entrepreneurs have been doing their work illegally, thus, they have had to keep their occupation a secret. Qualitative research is a systematic method of gathering data on what people say, do, and produce in their natural environments in order to learn about the world as they see it (Tanyanyiwa and Kanyepi, 2015). It aims to elicit detailed responses from participants. In addition, the selection of a qualitative study was not

only due to a limited number of participants it was also selected because of the objectives of the study, which was exploratory in nature.

#### **1.11.4 Research design**

A research design is essential for conducting an investigation and obtaining meaningful answers to research questions. It ensures the coherence and integrity of the entire research project by outlining the necessary steps and procedures for data collection, analysis, and interpretation. By following a well-defined research design, researchers can effectively address the research problem and find a resolution (Tanyanyiwa and Kanyepi, 2015). In this study, the researcher chose a cross-sectional descriptive design to outline specific characteristics of a particular population within the phenomenon being studied. This choice was made because the study focuses on exploring aspects related to cannabis entrepreneurs, and a descriptive design is suitable for examining and describing these specific attributes (Cruz and Tantia, 2017). The descriptive design employed in this study enables a comprehensive examination and thorough understanding of the phenomenon under investigation, drawing on the diverse characteristics and narratives of the specific population of interest (Cruz and Tantia, 2017). The researcher aims to gain insights into a particular phenomenon and its potential impact on the current research topic, specifically focusing on cannabis entrepreneurs and the Masterplan.

#### **1.11.5 Population Sampling Techniques**

Sebastian and Ralph (2022) describe the target population as the entire population that the researcher is interested in. In this study, the population was all cannabis entrepreneurs within the Limpopo Province. It is difficult to ascertain the exact number of cannabis entrepreneurs and hence the appropriate participants for this study since there were varied factors in their classification.

The qualifying criteria for inclusion as study participants were:

- (a) Cannabis Entrepreneurs
- (b) Over 21 years of age
- (c) Both females and males

Sampling is the practice of picking cases to represent an entire population, to enable a researcher to draw conclusions about that population (Dosek, 2021). The snowball sampling method is a technique in which a researcher contacts a few possible

responders and then asks if they know others with the same characteristic who might be interested in participating in the study (Dosek, 2021). Snowball sampling was used because it allowed the researcher to use one entrepreneur to gain access to others who might be potential entrepreneurs/participants. The adequate number of the sample size was guided by the point of saturation.

#### **1.11.6 Data collection procedure**

The process of acquiring data to address the research topic is known as data collection (DeJonckheere and Vaughn, 2019). The reason for using qualitative research method in the data collection is the need to use interviews to collect in-depth information from participants. Thus, in-depth face-to-face and virtual semi-structured interviews with cannabis entrepreneurs in Limpopo Province, South Africa, were used to obtain data.

Data was collected by the researcher after getting consent from the participants and planning the interview dates. Semi-structured interviews typically consist of a dialogue between the researcher and participants, guided by a flexible interview protocol and supplemented by follow-up questions, probes and comments (DeJonckheere and Vaughn, 2019). There are four phases to consider when conducting in-depth interviews using a qualitative approach: designing a sampling technique, writing an interview guide, conducting the interviews, and interpreting the results (Archibald et al., 2019). The interviews were in English, however, with participant who had doubts about the study questions, the researcher clarified further by using the language that was understood by the participants, which was then translated into English, hence, participants were able to use their preferred language to respond.

#### **1.11.7 Reliability and Trustworthy**

Reliability' is a measure of a phenomenon consistently over stable conditions and translates into consistent results (Fried, Eiko, Flake, & Robinaugh, 2022; McGinley, Wei & Zhen, 2021). According to these authors, the concept represents four criteria to estimate the trustworthiness of findings from research: credibility, dependability, applicability, and neutrality. The credibility of the opinions and responses provided by the participants corresponds to the extent to which they reflect the interpretation by researchers credibly (Daniel, 2019). As further noted by Prosek and Gibson (2021), that is, such reliability is established by the methods used to draw the conclusions.

Applicability is a level to which results can be generalised and that is achieved by a qualitative study when a researcher includes comprehensive details about the tool, the setting of the research, methods, and the sample that allows a reader to be able to apply the findings to his or her situation (Pekkola, Hekkala, and Rosi, 2021). Objective and hence rid of any possible bias in research carried out. Reliability was also ensured by in-depth interview key players, where the researcher was in a position to relate to the participants earlier, and thus, it was possible for trust to have been built amid the participants and the researcher (McGinley et al., 2021; Prosek and Gibson, 2021). Furthermore, individuals with diverse backgrounds and perspectives were consulted to review the interview guide before it was put into practice. The purpose of this step was to guarantee that the questions were presented in a concise and easily understandable way, that participants correctly understood and interpreted each question, and that the questions were pertinent and in line with the study's goals. Additionally, it aimed to confirm that participants who had knowledge about the topic comprehended the intention behind each question consistently and accurately. Below is a brief explanation of all measures of trustworthiness, detailed information is provided at chapter three:

### **11.7.1Credibility**

Credibility focuses on consistency and comparability of outcomes across different data collection methods. It ensures that results remain stable despite variations in research approaches. The researcher ensured credibility by enabling external verification of the research process, presenting data transparently, and actively engaging with participants (Poortman and Schildkamp, 2012). The researcher in this study made sure that the collected data was accessible for external verification of the research process.

### **11.7.2Transferability**

Ensures that findings can be applied to different contexts. The researcher achieved this by designing questions relevant to the participants' perceptions, using saturation data, and providing a clear description of the research process (Slevin and Sines, 1999, Hadi and José Closs, 2016). The researcher improved transferability by selecting resources and saturation data, as well as by providing a clear description of the data.

### **11.7.3 Dependability**

Refers to the reliability of conclusions drawn from the study. The researcher enhanced dependability through rigorous research design, meticulous data collection, comprehensive documentation, and ensuring consistency in findings (Golafshani, 2003). The researcher extensively described the participants and research settings, recorded detailed field notes from observations and interviews, and thoroughly documented the data collection methods. The researcher ensured consistency in the findings and provided sufficient information in the research report to facilitate replication of the study

### **11.7.4 Confirmability**

Ensures that study findings are impartial and not influenced by the researcher's biases. The researcher maintained confirmability by separating personal motivations from data interpretation and providing access to data for external validation (Janis, 2022). The researcher took measures to guarantee the impartiality of the study's findings, ensuring they were derived from participants' responses rather than the researcher's personal motivations. Additionally, the researcher provided the supervisor with access to the data, transcripts, and field notes as evidence of unbiased results

### **1.11.8 Data Analysis**

The introduction of computer-aided qualitative data analysis software (CAQDAS) has transformed the way researchers approach data analysis. By using this software, researchers can significantly reduce the time spent on analysis, allowing them to focus more on interpreting and deriving meaningful insights from the data. Additionally, the software's user-friendly interface and intuitive features make the analysis process simpler and more accessible to researchers of all skill levels (Jenkins, Monaghan, and Smith, 2023).

CAQDAS can provide quantitative data out of qualitative approaches, such as in the form of data on specific events, words, phrases; however, its main usage is to enhance the qualitative analysis of this kind of data in the form of interview transcripts or narratives (McGinley et al., 2021). It can carry out this by managing the data that allows for instant access to all the data upon input, searching, and retrieval of particular words or phrases, coding and data retrieval, data interrogation of the language used, and

relationships between codes while enabling comments and notes to be written in relation to the data and production of output reports to other software packages such as Microsoft Word™, Microsoft Excel™, SPSS, and ATLAS.ti.23 (Jenkins et al., 2021; McGinley et al., 2021).

In this respect, qualitative data were further tabulated, coded, and organized into themes making use of the software ATLAS.ti.23. ATLAS.ti.23 software helps in the revelation and organized analysis of difficult happenings lying in texts and multimedia data (Friese, 2019). The tools offered by the programme help in finding, coding, and interpreting findings in primary data material; weighing and evaluating the importance of the findings; and visualising complex relations among the findings.

#### **1.11.9 Ethical Considerations**

The protection of human subjects in any research is imperative, thus, the proper application of ethical principles should never be neglected.

#### **1.11.10 Ethical clearance**

The researcher obtained ethical clearance from the University of Venda. All the processes that were required within the Department and the Faculty were followed until all the correct documentation were obtained.

#### **1.11.11 Informed consent**

Informed consent refers to the process of informing participants, before the commencement of a study, the full implication of their participation in the study, including all the potential risks and benefits (Millum and Bromwich, 2021). In other words, they participate with a full knowledge of what they are getting themselves into. The researcher provided participants with full information about the study prior to the commencement of interview, which allowed them to make informed choices to participate or not in writing by signing the consent form.

#### **1.11.12 Confidentiality**

Reed-Berendt, Dove, Pareek (2022) and UK-REACH Study Collaborative Group (2022) explain 'confidentiality' as a state or circumstance in which the researcher knows the identity of the object or participants within the study but takes measures that no one else has this information. The researcher locked the information from the participants in safe storage and ensured that no unauthorised individuals had access

to the data; this ensured participants' right to privacy. The researcher and the supervisor were the only individuals with access to the storage facility (Reed-Berendt et al., 2022).

#### **1.11.13 Anonymity**

In research, anonymity is the condition where the personal details of the participants are not known by anyone else, except the researcher (Braun, Clarke, Boulton, Davey, and McEvoy, 2021). The researcher protected the identity of participants by not revealing their names when compiling the report (Braun et al., 2021).

#### **1.11.14 Right to withdraw from the study.**

Reed-Berendt et al. (2022) emphasises the fact that for a study to be ethical, participants need to be informed of their right to cease participating in a study at any time that they deem fit and should be made aware that there shall be no negative consequences for doing so. The researcher ensured that participants were informed that they may withdraw from the study at any time if they wish to do so.

#### **1.11.15 Overview of the Structure of the Dissertation**

This dissertation focuses on exploring the perceptions of cannabis entrepreneurs on South Africa's cannabis' commercialisation Masterplan. The research project is presented in three (3) parts, as outlined below.

#### **Part One (1)**

Part One of the dissertation provides the background of the study. Chapter One begins with a brief background and statement of the research problem, follows with an outline of the research objectives and questions, and concludes with the significance of the study, structure and layout of the dissertation including the applied conceptual framework. A preliminary literature review is detailed in Chapter Two where there is an overview of the possible positive and negative impact of cannabis commercialisation as well as the processes' facilitating strategies. Chapter Three presents a comprehensive description of the methodologies employed in this study, including methods of sampling, data collection, analysing, as well as ethical considerations governing the whole research process.

#### **Part Two (2)**

in this part is presented a description of the results. This section (Chapter Four) provides a detailed presentation of the results on perceptions of cannabis entrepreneurs on South Africa's cannabis' commercialisation masterplan. During face-to-face semi-structured interviews with participants within the Limpopo Province, data was collected from sixteen participants. This chapter further provides a discussion of results from the data that was analysed.

### **Part Three (3)**

This part, which is the final and which comprises of Chapter Five, summarises the major findings based on the study's objectives, as well as draws inferences, offers recommendations and conclusion based on the findings. This part also provides annexures in which key support materials, such as a consolidated list of references, copies of ethical clearances and permission, research budget, Time frame and interview guide.

#### **1.11.16 Chapter Summary**

This chapter sets the stage for the entire study; it introduces the significance of cannabis entrepreneurs' perception on the Masterplan on the commercialisation, in the context of the broader industry and economy. The Chapter clearly articulates the research problem in line with the study aims, objectives and questions. The discussions also outlined the study's significance; the conceptual framework and theoretical perspective which guide the study; a brief overview of the methods that were employed for data collection and the analysis.

## CHAPTER TWO: LITERATURE REVIEW

### 2.0 Introduction

As the global landscape surrounding the legalisation of cannabis for commercial purposes continues to evolve, nations worldwide are prompted to reconsider their policies and regulations concerning its cultivation, distribution, and consumption. Among these nations, South Africa has emerged as a focal point, embarking on a journey to formulate a comprehensive framework for cannabis cultivation and trade, exemplified by the ambitious Cannabis Masterplan. This chapter's literature review aims to provide a nuanced understanding of how cannabis entrepreneurs perceive the implementation of the Masterplan, with a specific focus on the Limpopo Province. By delving into existing literature, encompassing theoretical frameworks, empirical studies, and key concepts pertinent to the subject matter, this review endeavours to identify gaps, contradictions, and avenues for further exploration. Drawing from a wide array of scholarly sources, including academic journals, books, and reputable publications, this chapter seeks to establish a robust foundation for the current study, thereby contributing to the ongoing discourse and knowledge advancement in this field.

### 2.1 Background description of cannabis.

A study conducted by Abdollahi, Sefidkon, Peirovi, Calagari, and Mousavi (2021) in Switzerland revealed that *Cannabidiol*, also known as CBD, is one of the active ingredients present in hemp. As well, hemp, also known as cannabis, is a plant that belongs to the Cannabaceae family. It is cultivated in multiple areas of the world, and people have been using it for therapeutic and healing effects for thousands of years. Previous studies showed that this plant contains more than 100 various cannabinoids, a group of substances including CBD, along with many other natural constituents. The principal types of cannabis generally come in the resin form of the drug cannabis, also known as 'hashish,' and herbal cannabis, often known as 'marijuana' (Abdollahi et al., 2021).

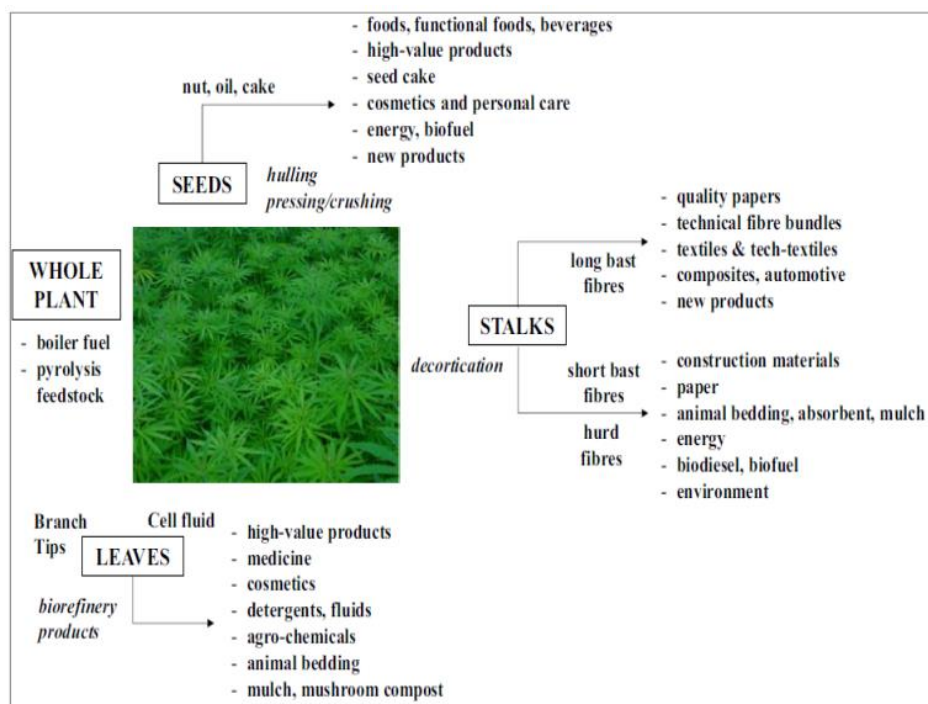
EISohly, Chandra, Radwan, Majumdar, and Church (2021) also indicated that there are some items such as 'cannabis oil' and 'pollen'. The dried flowers, buds, and leaves of the plant are usually the plant materials used in the production of herbal cannabis, while cannabis resin is a secretion harvested from the plant. Cannabis oil, pollen, and other forms of the plant demand the use of more specialized parts of the plant or more complex ways of collecting and processing the plant and its psychoactive chemicals, generally referred to as cannabinoids (EISohly et al., 2021). The cannabis plant comprises at least seventy unique compounds collectively known as *Phyto cannabinoids*, out of which two of the most crucial include the *tetrahydrocannabinol (THC)* and *cannabidiol (CBD)*. THC is a type of cannabinoid that gives not only the psychoactive effect but is also beneficial for medicinal use. CBD is a cannabinoid with predominantly medicinal properties. The major difference between hemp and marijuana is in its appearance and the THC content found in it. Hemp plants are usually tall while marijuana plants are short and bushy. Figure 2.1 below illustrates the differences between *marijuana and hemp*.



**Figure 3:** hemp plant (right) and marijuana plant (left) adopted from the site “green wellness”. (Crini et al., 2020)

A detailed examination shows that every part of the cannabis plant is usable. Historically, humans have bred the cannabis plant for a number of purposes with such falling under three categories (Rightford, 2020). First, it is used for fiber, or stalks usually originating from the hemp varieties e.g., the stalks, seeds, and leaves made

into different construction materials, textiles, paper, food, furniture, cosmetics, and healthcare products. In the second regard, its seeds are extracted from the female hemp plant due to its rich oil and protein content. Commonly and thirdly, harvested for their psychoactive and therapeutic cannabinoids are drug-type cultivars. The different uses of cannabis hemp are shown in figure 2.2 below.



**Figure 4:** Uses of cannabis (Crini et al., 2020)

### 2.1.1 Theoretical literature review

This research focuses on the understanding the perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan. This is relevant to the proposed research's main objective, which is to get a thorough grasp of the viewpoints on effects of cannabis masterplan on entrepreneurs.

#### 2.1.1.1 Joseph Schumpeter: Entrepreneurship Theory.

According to (Mehmood, Alzoubi, Alshurideh, Al-Gasaymeh, and Ahmed, 2019) Joseph Schumpeter (1883-1950) made significant contributions to the field of entrepreneurship, notably in his renowned publication "Capitalism, Socialism, and Democracy" in 1942. Within this theory, he introduced the groundbreaking concept of "creative destruction." Schumpeter's perspective highlighted the pivotal role of entrepreneurs as catalysts for change and progress within the economy. By constantly

introducing novel products, processes, and business models, entrepreneurs disrupt established markets, leading to economic growth through innovation. Schumpeter emphasized the transformative power of entrepreneurs, as they possess the unique ability to drive economic advancement by introducing new technologies and ideas that shape the future of industries and societies (Mehmood et al., 2019).

Schumpeter's viewpoint emphasizes the vital role of entrepreneurs in driving economic progress through the introduction of new products, services, and business models (Mehmood et al., 2019). This concept is applicable to the cannabis industry, where entrepreneurs are recognised as trailblazers who bring innovative strains, consumption methods, and products to the market. By consistently pushing the limits of what can be achieved, these entrepreneurs contribute to the expansion and development of the cannabis industry, meeting the varied demands and preferences of consumers through manufacturing and production processes. Thus, the dynamics of the cannabis industry can be comprehended by applying Schumpeter's theories of entrepreneurship and innovation. Within this sector, obstacles and have a significant impact as they bring forth new concepts, overcome regulatory obstacles, and foster economic growth through innovative practices and creative destruction.

The application of Joseph Schumpeter's Entrepreneurship Theory to various industries, including the cannabis industry, has been extensively studied in the theoretical literature. Schumpeter's concept of "creative destruction" has been a focal point in understanding entrepreneurial dynamics and their impact on economic development. According to Schumpeter's theory, entrepreneurs are essential in propelling economic growth through innovation and the disruption of existing market structures (Maziriri, Nyagadza and Chuchu,2023). The idea of creative destruction highlights how entrepreneurial activities continuously introduce new products, processes, and business models, leading to the dismantling of old structures and the creation of new ones. This process is considered crucial for long-term economic advancement (Maziriri et al., 2023).

In the context of the cannabis industry, Schumpeter's theory provides valuable insights into the transformative role of entrepreneurs in shaping the industry's trajectory. The legalisation of cannabis in various regions has brought about significant disruptions, with entrepreneurs driving innovation and market changes. By introducing new products, technologies, and business strategies, these entrepreneurs not only seize

emerging opportunities but also challenge established norms and practices. The dynamic nature of entrepreneurial activity emphasised by Schumpeter aligns well with the rapid evolution of the cannabis industry (Mehmood et al., 2019). Entrepreneurs in this sector are continuously exploring new cultivation techniques, product formulations, and distribution channels, pushing boundaries and fostering innovation. This relentless pursuit of innovation not only enhances competitiveness but also contributes to broader economic growth by creating employment opportunities, attracting investments, and stimulating related industries (Melin and Gaddefors, 2023).

Moreover, Schumpeter's theory provides valuable insights into the difficulties and impediments encountered by entrepreneurs operating in the cannabis sector. The presence of regulatory obstacles, market instability, and societal perceptions pose substantial barriers to entry and expansion. However, Schumpeterian entrepreneurs thrive in the face of such challenges, perceiving them as opportunities to introduce innovation and distinguish themselves within the market (Bouabd, Bennani and Jerry, 2023)

The application of Schumpeter's Entrepreneurship Theory to the cannabis industry highlights the industry's dynamic and transformative nature. By acknowledging the pivotal role played by entrepreneurs as catalysts for change, policymakers, researchers, and industry stakeholders can gain a deeper understanding of the forces that drive the dynamics of the cannabis market and develop strategies to promote innovation and sustainable growth (BOUABD et al., 2023).

In conclusion, Schumpeter's Entrepreneurship Theory provides a compelling framework for understanding the dynamics of the cannabis industry. By emphasizing the role of entrepreneurs in driving innovation and creative destruction, this theory sheds light on the industry's evolution, challenges, and opportunities, thereby informing both scholarly research and practical policymaking efforts.

#### ***2.1.1.2 Jessor and Jessor: Theory of behaviour***

According to the theory of behaviour a person's engagement in harmful or abnormal conduct, such as cannabis sativa's use, depends on the interaction of their personalities (Jessor and Jessor, 1977). It is common in a given society for perceptual and behavioural repertoires to exist. Additionally, there are issues that any problematic behaviour indirectly affects; an emotionally unsupportive home is one illustration of

this. With the help of this hypothesis, several aspects of cannabis sativa use, abstinence, and prevention can be considered. This can be seen in goals that aim to stop cannabis sativa use-related behaviours. The increased understanding of the legal ramifications of cannabis sativa use might serve as a useful illustration.

This theory provides a way to examine variables related to cannabis commercialisation; the following are some of the core presuppositions of the theory, (Garrick, 1999). First, people are not just passive participants in social, political, and historical activities, they have internal capacities that enable them to make their own judgements, perceptions, and decisions. There are certain factors which implicate the full credibility of cannabis trade for both recreational and medicinal purposes which are social and political bases. Cannabis, for instance, for recreational purposes is considered as a drug which is mostly misused by young adults; for medicinal purposes, big pharmaceutical companies might lose immense profit as cannabis have been identified as a cure for various diseases with the additional benefit that anyone can plant and process the plant for themselves, which may result it high competition for pharmaceutical companies. Second, the conviction that any occurrence or action can be explained in terms of numerous interrelated processes and causes.

### ***2.1.1.3 Total Quality Management (TQM) theory***

Total Quality Management (TQM) is a management philosophy that emphasizes continuous improvement, customer focus, and the involvement of all employees in the organisation to enhance product and service quality (Wani, and Mehraj, 2014). Originating from the manufacturing sector, TQM has evolved to be applicable across various industries, including the emerging cannabis industry. The application of TQM principles provides a theoretical lens through which to examine the perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan. By analysing how these entrepreneurs integrate TQM principles into their business operations, this study aims to uncover insights into the opportunities and challenges faced by the cannabis industry in Limpopo Province (Talib, 2013).

### ***Application of TQM in the Cannabis Industry***

The application of TQM principles within the cannabis industry can provide valuable insights into understanding the perceptions of cannabis entrepreneurs towards South Africa's cannabis masterplan. By adopting TQM principles, cannabis entrepreneurs

can strive for excellence in product quality, compliance with regulations, and customer satisfaction. Below are the *Key Principles of TQM Relevant to the Study*:

#### **2.1.1.3.1 Customer Focus**

In the context of cannabis entrepreneurship, customers include both end-users and regulatory authorities. Understanding and meeting the needs and expectations of these stakeholders are critical for the success of cannabis businesses.

#### **1.1.1.3.2 Continuous Improvement**

TQM advocates for ongoing efforts to enhance processes, products, and services. For cannabis entrepreneurs, this entails adapting to changing regulatory frameworks, improving cultivation techniques, and refining product offerings to align with market demands.

#### **2.1.1.3.3 Employee Involvement**

TQM emphasizes the involvement of all employees in quality improvement initiatives. In the cannabis industry, this translates to fostering a culture of compliance and quality consciousness among employees, thereby ensuring adherence to regulatory standards and consistent product quality.

#### **2.1.1.3.4 Process Optimisation**

TQM encourages the identification and elimination of inefficiencies in processes to enhance overall organisational performance (Talib, 2013). Within the cannabis industry, optimising cultivation, extraction, and distribution processes can lead to improved efficiency and cost-effectiveness.

#### **2.1.1.3.5 Conclusion**

Total Quality Management offers a comprehensive framework for understanding and improving organisational performance in the cannabis industry. By examining the perceptions of cannabis entrepreneurs through the lens of TQM, this study seeks to contribute to the body of knowledge on effective management practices within the context of South Africa's evolving cannabis landscape.

## 2.2 Challenges in commercialising cannabis

### 2.2.1 Cannabis legalisation reforms

In the UK, Peter Yeoh's study indicated that the push for cannabis legalisation was galvanised when the country's 2020 presidential potential candidates introduced the Cannabis Justice Act of 2017 to legalise cannabis in the country. Businesses all over the UK are turning their focus to, or in the process of considering, entry into or investment in the legal cannabis space within the UK, or overseas, according to Yeoh (2020). Kirkpatrick and O'Callaghan (2022) evidenced that in the UK, those advocating reforms in the legal reforms of cannabis suffered let-downs on the legislative front. The House of Commons had not legalised for its use and possession for private purposes nor for regulation of its production, distribution, and sale. A recent study reported that one can access cannabis in the UK, but only under prescription for medicinal use; however, in relation to recreational use, it is unavailable (Kilmer et al., 2021).

On the issue of recreational and medicinal cannabis, a vote was held on the 17th of October 2020 whereby 50.7% of New Zealanders opposed the proposal of legalisation and regulation of non-medical ('recreational') cannabis use and supply in a public referendum conducted during the recent general election (Fischer and Hall, 2021). The research carried out by Volteface, and the Centre for Medicinal Cannabis indicated that most of the British public back the legalisation of cannabis with some 59 percent supporting, and 41 percent opposing the idea. Interestingly, more than two-thirds of 18- to 24-year-olds and almost half of those over 65 produced these results.

Using a quantitative research methodology, a study conducted by (Plakias, Jodlowski, Giamo, Kavousi, & Taylor 2022) found that despite the 2016 legalisation of recreational cannabis cultivation and sale in the United States of America, in California with the passage of Proposition 64, many cannabis businesses operate without licenses. In addition, Federal regulations has disincentivised financial institutions from banking and lending to licensed cannabis businesses (Plakias et al., 2022).

According to (Barrett, Mellor, Ritter, MacLauchlan, and Kearnes, 2022) the Drugs of Dependence (Personal Use of Cannabis) Amendment Bill 2018 was instituted in the Australian Capital Territory (ACT) at the beginning of 2020. The scholars alluded that the Act legalised the use and possession of personal quantities of cannabis (50 g of dried cannabis and 150 g of freshly harvested or wet cannabis) and cultivation of a

small number of cannabis plants (maximum of 2 per person up to 4 per household). In addition, the authors also disclosed that the Bill did not go so far as to implement a complete legal regulatory regime wherein the cannabis trafficking offenses as well as its sale, swap, or sharing of cannabis plants, products, and cannabis seeds were concerned, and cannabis plants grown by artificial cultivation likewise remained prohibited. The qualitative research highlighted that incremental changes in cannabis laws have resulted in the creation of regulatory grey areas, which encouraged individuals to interpret and navigate such grey areas in connection to their relative privileges, circumstances, and histories (Barrett et al., 2022).

Krause and Pullman (2021) are of the view that challenges for growing the cannabis industry include other African states maintaining inconsistent laws, fearful attitudes towards cannabis' legal cultivation. In most countries in Africa, the smoking of cannabis is still considered to be immoral and deviant, while for those where the growing of cannabis is legal at the moment, the high cost of production and regulation hinders the expansion of the industry. That will be an uphill battle for smaller local producers hoping to make their claim on the cannabis export market, and for wider legal production of cannabis in African economies. Cannabis is one of the largest industries in Morocco, with the country remaining among the top suppliers globally, even though the cultivation, development, commerce, and use are banned under present law (Elhamdaoui, Meiouet, Ajlal, Chergui, Zakariya, and Nejjari, 2019). Therefore, one of the strictest legal regimes in the world keeps cannabis illegal in Morocco. There are three reasons for this, and all these options would have a negative financial, social, and cultural impacts on Morocco. First will hold the status ambiguous; the second would legalise the existing laws, and the third would legitimate these regulations totally (Elhamdaoui et al., 2019).

In the Republic of South Africa, the most significant legal challenge is that there is no law that specifically allows for the commercialisation of cannabis (Collins, 2020). Cannabis is brought under control by the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol (Schedules I and IV). The author explains that they can only remove impediments for commercialisation, but they cannot drive commercialisation. The regulation of cannabis is in two legislations, namely the Medicine and Related Substances Act, 1965 (Act No.101 of 1965) administered by the Department of Health while the Drugs and Trafficking Act, 1992 (Act No. 140 of 1992),

by the Department of Justice and Correctional Services that is enforced by the South African Police Services.

Using a quantitative methodology, a study investigated the diversity, consumption dynamics and ethnomedical claims of traditional leafy vegetables comprising of cannabis, in Kwa Mbonambi area, northern KwaZulu-Natal (Mncwango, Mavengahama, Ntuli, and Van Jaarsveld, 2020). The study focused on various traditional leafy vegetables and the researcher discovered that cultivation of cannabis in South Africa, predominantly in the Eastern Cape and KwaZulu-Natal, is centuries old. The plant in many farming communities has been put into use as a way of social life, for the sustenance of livelihoods among other medicinal applications. Nonetheless, regulating cannabis in South Africa remains an exceedingly complex undertaking due to this intricate social-economy interplay (Mncwango et al., 2020).

### **2.2.2 Cannabis-governing conditions**

The laws governing the production and use of cannabis vary greatly around the world, but the overall picture is that more and more jurisdictions are allowing what was previously prohibited.

#### **2.2.2.1 Countries' flexible cannabis laws**

Cannabis laws in the United States are one of the most perplexing, globally. Federal regulations allow cannabis products containing less than 0.3% tetrahydrocannabinol (THC), but states can develop cannabis legislation, independently. Colorado, California, Oregon, and Washington, for example, permit medical and recreational cannabis use. Chan, Burkhardt & Flyer, (2020); Patton (2020) and Chan et al., (2020) explain that recreational cannabis, on the other hand, is illegal in some states, including Florida, Arkansas, Georgia, and Oklahoma.

The Netherlands legalised cannabis consumption long before the rest of the world did; Barata, Ferreira, and Oliveira (2022) add that cannabis may not be grown in the country, despite its legality. The country, however, is rethinking its cannabis laws and considering the opportunities presented by cannabis-tourist revenue (Barata et al., 2022). While cannabis is legal to own and smoke in small amounts in Italy, cultivating or selling it could result in a fine. Paradoxically, the nation produces a lot of cannabis, hence, there is growing momentum to legalise it (Giupponi et al., 2020). Jamaica has an entirely favourable attitude toward cannabis, with no restrictions or legal penalties

(Neis Araujo, 2023). Researchers like, Grafinger, Krönert, and Broillet (2020) in their paper revealed that the cultivation of hemp is permitted in Switzerland, hence, cannabis possession in small amounts is no longer illegal. In most Asian countries, however, cannabis is still considered illicit, and penalties for possession can be severe (Grafinger et al., 2020).

Cannabis is the major crop in Africa, and many farmers in various countries in Africa produce enough to meet the demand of the continent and export smaller quantities to Europe (United Nations Office on Drugs and Crime, 2013; Duvall, 2019). Cannabis import into the continent is not major, but international trading is common within Africa because of variations in supply, demand, law enforcement, and farming opportunities. Duvall (2019) adds that the crop itself provides an income to a lot of rural communities, and to those who distribute and sell it in the cities. Recent literature has heavily implied that liberalization of cannabis in Africa would be not less than intricately interwoven with agriculture even if it is left out in national drug policies.

African countries have diverse interests quite significantly, but the topic has generalized priority as agriculture remains central to most nations' economic development. One major problem with this argument is that one of the strategies to advance economic development, could be to allow farmers legal access to domestic and international markets for cannabis (Phiri Kampanje, 2022). A closer look at the liberalization of cannabis highlights the strong economic arguments for cannabis liberalization, which have been strong in many parts of the world, and these are supported by the revenues generated since 2014 in legal markets in several U.S. states and Canada (Duvall, 2019).

#### **2.2.2.2 Complex Cannabis regulatory systems**

The legislative framework regarding both recreational and medical use varies substantially from country to country and even region to region, but on an international level, the overall picture is one of continued prohibition. A study based on cannabis legalisation and regulation carried out in Canada (Cox 2018). What the study found was that the shift from that of prohibition to that of regulation was rooted in the preamble wording of the Cannabis Act (Cox, 2018). In turn, the Cannabis Act aims at redirecting attention and resources from criminal prohibition to the regulation by government. They also add that underpinning it would be the ultimate goal of cannabis

legalisation and regulation to minimise such harms as those surrounding the illicit market, youth access, poor safety and quality regulatory conditions—with the view to creating disincentives leading to the reduction and ultimate elimination of the illicit market, and the alleviation of undue burden placed on the criminal justice system by prohibition. In the UK, issues of cannabis regulations are influenced by claims that cannabis is a class B drug hence making it illegal to possess, grow, or distribute (Cox, 2018; Caulkins et al., 2016; UK Government, 2019). Those caught in possession are liable to unlimited fines, face a maximum of five years in jail or both and those caught supplying the drug could face a maximum jail sentence of fourteen years; for non-psychoactive medical cannabis such as cannabidiol (CBD) the matter is currently under research for its therapeutic features.

A study conducted by Anees, Bahji, Callum and Stephenson (2019) took a greater focus on the international implications and viewpoints of cannabis legalisation. Using a qualitative narrative synthesis, the authors concluded that the effects of cannabis legalisation are heterogeneous, hence there still remains substantial controversy on the overall impact of legalisation in particular, on mental health, and public policy. Consequently, cannabis policy globally is fast evolving in Canada, the United States, and elsewhere as more and more jurisdictions move toward the legalisation of the medical and recreational use of cannabis (Bahji and Stephenson, 2019).

A comparative study by (Phiri Kampanje, 2022) reported that Malawi enacted Cannabis Regulations Act 2020 which in a way mirrors section 3(2) of the country's Dangerous Drug Act but by referring to industrial hemp. The author further articulates that "Section 2 of the Cannabis Regulations Act 2020 provides that 'industrial hemp' means a cannabis plant, or any part thereof, with a delta-9 tetrahydrocannabinol (THC) concentration of no more than 1% in the plant material or such other concentration as may be prescribed by the Minister by order published in the Gazette". In a study undertaken by Ugwu and Dumbili (2022) on how Nigeria's National Drug Law Enforcement Agency (NDLEA) enforces cannabis and other drug regulations, a qualitative research methodology was applied. However, the major weakness of this study is the fact that cannabis is stigmatised as users suffer diverse forms of discrimination and marginalisation, to the extent that the police often arrest and brutalise perceived and actual users; despite a punitive approach towards the regulation of cannabis within the country, the drug remains available and widely used.

In their study, Owusu, Arthur, and Aboagye (2021) found that the Narcotics Control Commission Act, 2020 (Act 1019) (2020) was recently enacted in This law was to annul the Narcotic Drugs (Control, Enforcement and Sanction) Act, 1990, PNDC Law 236, which made the possession or importation of narcotic substances unlawful. A violation of the law was punishable by up to 10 years of imprisonment (Owusu et al., 2021).

A study done by (Nkala, 2018) focuses on the anticipation of industrial hemp production in Zimbabwe. The author elucidated in his study that the Minister of Health and Childcare, David Parirenyatwa, published the statutory instrument 62 of 2018 - Dangerous Drugs Production of Cannabis for Medicinal and Scientific Use Regulations - that says investors wishing to farm and process cannabis could apply to the Ministry for permission to start the business. The literature outlines that the statutory instrument stipulates that - *“An application for the issue of a license in terms of section 27 of the Act shall be made to the minister, in duplicate, and shall be accompanied by the appropriate fee and three copies of a plan of the site proposed to be licensed, which shall comply with the requirement specified in these regulations.”* Ugwu and Dumbili, (2022), however, note that possession of cannabis and its use for recreational purposes remains illegal and people convicted of the crime are jailed for up to twelve years in Zimbabwe.

### **2.2.3 High licensing fee**

A considerable amount of literature has been published on cannabis' commercialisation. The fourth policy on Sustainable Development Goals (SDG 2) is to promote the establishment of agro-industries and agri-business to encourage rural industrialisation and export production (Mashinini, 2019). The author postulated that private sector initiatives such as horticulture and commercial cannabis production for export and medicinal industries should be encouraged by the government.

A notable concern pertains to the steep startup costs intrinsic to cannabis production, a factor that invariably favours large foreign entities. The expenses for starting a cannabis business in Africa, vary greatly between countries. In Malawi and Lesotho, for example, manufacturing licenses cost \$10,000 and \$35,000, respectively. These high financial responsibilities render projected economic advantages nearly unachievable for smaller-scale manufacturers and farmers (Junior et al., 2023). The

South African Cannabis Masterplan estimated the costs to set up a facility to the necessary licensing standards and to prepare an application for license to be as high as R6 million. The application fee alone runs around R25 000 (\$1,318.87). Permit issuance is only envisaged for persons or organisations who want to carry out research projects under the current legislative framework (Department of Agriculture, 2021). At this stage, no permits are available, and a small application fee of about R900 (\$47.46 USD) must be paid by the applicant. They are also required to put up a 2meter high fence around their lands and ensure that the gates are locked for 24 hours. These, however, are seen as creating high barriers to resource-poor farmers and companies who wish to venture into and take part in the industry of hemp.

#### **2.2.4 High barriers to entry**

Recent research to date has focused on the legal cannabis trade in South Africa, which is only possible by obtaining a South African Products Regulatory Authority license for medical cannabis (Mothibe and Sibanda, 2019). For rural farmers, there are still considerable barriers to entry, including an extensive list of infrastructure and quality control measures that need to be implemented; these are also accompanied by prohibitive costs.

#### **2.2.5 Restrictive time-consuming licence operation processes**

The South African Health Products Regulatory Authority (SAHPRA) and the Department of Health work together to regulate the importation of cannabis and medications containing cannabinoids as registered medicinal products (Department of Agriculture, 2021). In order for companies to export cannabis to South Africa, they must obtain a permit from the Department of Health and a license from SAHPRA. These licenses are granted by SAHPRA and Health Officials for various activities related to medical cannabis production and sale. This includes cultivating and producing cannabis and cannabis resin, extracting and testing cannabis, manufacturing cannabis/cannabinoid-containing medicine, importing and exporting cannabis-containing medicine, as well as distributing cannabis-containing medicine. The license, which spans seventeen pages, primarily focuses on the acquisition, possession, manufacture, use, and supply of cannabis for medicinal purposes, rather than for recreational sale and consumption (Department of Agriculture, 2021).

### **2.1.6 Market concentration**

A study in South Africa by Stoa (2018) concluded that there is a risk possibility that big corporations with huge financial muscles are highly likely to dominate the new industry on cannabis in South Africa. The author declare that this would create a situation in which smaller businesses could be squeezed or even be taken completely out of the cannabis industry. Therefore, the total dominance by or the takeover of the big corporates still remains one of the serious challenges for the new cannabis industry in this country. The global trend will be that unless the small, medium, and large size of cannabis businesses develop target markets, bigger companies will take over those businesses. Government will, therefore, be incumbent to use the competition laws to deal with this challenge to create an inclusive cannabis industry. This view is further supported by (Norman, 2023) who posits that the South African medical cannabis program already depends mostly on imported cannabis from Canada. Presently, some of the global companies already doing business in South Africa include Aphria, Aurora, and Canopy Growth.

## **2.3 Cannabis commercialisation benefits outlined in the Masterplan.**

### **2.3.1 An open-market opportunity and economic growth contributor**

A study done in Australia was dedicated to industrial hemp seed from the field to value-added food ingredients (Burton, Andres, Cole, Cowley, Augustin, 2022). The findings depicted that across the world, at least 47 countries were estimated to have been cultivating the industrial hemp either for the reasons of commercial or for the research by the year 2019. On the other hand, the authors suggested that the top 10 producing nations had an aggregate land under the industrial hemp which was approximated to be 864,000 acres.

Nath (2022) conducted a study in India, where the scope was benefits of cultivation of an industrial cannabis plant for the sustainable future use. The Author stated that cannabis is an environment-friendly and a worthy crop that complements sustainable growth system. Countries' economies are improved by the growing of hemp, hence creating job possibilities, especially in agriculture-dependent areas. Its revival into the centuries-old multifaceted crop can be a turning point, showing ways to change the livelihood of farmers all around the world. With such reasoning, the author drew a conclusion that the benefits that will come from hemp production will lift the socio-

economic status of farmers in general and can cause a definite growth of countries' GDP per capita in general.

According to (Yeoh, 2020), a study conducted on the European cannabis market came up with a forecast of 123bn Euro of growth in the market to be realised by 2028 - more than twice Apple's 2018 revenue, and larger than Ukraine's gross domestic product (GDP). But in reality, the world could see the birth of an industry worth US\$500bn to US\$1tn. The author reported that, the UK cannabis market is estimated at 255 tonnes or around £2.6bn across some three million consumers and growing. The industry worth and the inevitable controversies surrounding it, therefore, merits more public and regulatory attention. Burton, Andres, Cole, Cowley, and Augustin (2022) confirm that prior, the hemp crops of the 1940s reached circa 100 thousand hectares, while today are of only 5 thousand hectares; due to these data today, Italy is the second largest behind the Soviet Union as the greatest producer. The sector currently has yearly growth of about 30%, and it is expected that in 2025 its value will stand at about 27 billion dollars (Burton et al., 2022).

Using a modified structure, Zhao, Xiong, and Chen (2021) conducted research in China that focused on regional comparison and strategy recommendations for industrial hemp based on a SWOT Analysis. From that process, the authors argue that there are opportunities for the development of the industry in Yunnan because of competitive advantages of the area in the world's market for cannabinoids and new markets with new applications that the potential has to offer (Zhao et al., 2021).

A recent study titled - *Between Prohibition and Regulation Narrative Analysis of the Cannabis Policy Debate in Africa* - by Nelson (2021) focused on the shift in legislation by several African governments toward the export and regulation of medical cannabis, due to the fact that cannabis creates business opportunities for those nations and the industry is constantly expanding. This will thus add to economic diversification initiatives that a number of African states are currently leading via medical cannabis; some of these countries include Lesotho, South Africa, Rwanda, Zambia, Malawi, Ghana, Eswatini, Zimbabwe, Uganda, and Morocco. These are, however, rapidly changing perspectives, and they may have come to a standstill.

Phiri Kampanje (2022) made an observation that Malawi joined a list of African countries such as Zimbabwe, Zambia and Lesotho in the idea that medicinal hemp

could be explored for industrial usage as a part of economic growth in impoverished countries, although South Africa has legalised the use of hemp for recreational purposes. Commenters have lauded the legal cannabis market in Lesotho as a way of creating employment and economic opportunity. Further, it is believed that Malawi should devise a supply chain system and set an annual target of \$500,000,000.00 to ensure that none but locals benefit from these commercial ventures; capturing even a mere share of 0.01% of the global market could inundate Malawi by 260 million USD. In case this happens, there should be no new ways of doing, instead, these businesses should simply be registered such that there are no new expenditures, then their incomes can be recorded and taxed at a rate of 50% of their income.

According to the Department of Agriculture, Land Reform and Rural Development (DALRRD), the South African cannabis Masterplan is a "broad framework for development and growth of the South African Cannabis industry towards contribution to economic development, job creation, inclusive participation, rural development and poverty alleviation". A realisation that the report indicated could see the government of South Africa view the cannabis industry as one that could be able to generate the country some income as well as more jobs for its citizens. The Department of Agriculture, Land Reform, and Rural Development (DALRRD) recently estimated that the South African cannabis industry is currently standing at around R28 billion (\$1,5 billion) and its potential could create around 10 000 to 25 000 jobs within the value chain (Department of Agriculture, 2021). For instance, the Northwest Department of Agriculture and Rural Development is unyielding to ensure the Cannabis Masterplan takes a place in the agricultural transformation in the province (Setlhako, 2022, Nkwabi and Mboya, 2019; Department of Agriculture, 2021).

All these studies corroborate the findings of Lowitt (2020) who added that while South Africa (SA) is fighting the aftermath of COVID-19 and trying to revive the economy and create jobs, no opportunity should be lost in thinking about investments in new markets for products that could revive the scale and dynamism of the manufacturing sector. This is as TIPS economists have developed a Post COVID-19 Recovery Programme in South Africa using the concept of 'business unusual' to provide impetus for the arrest of the current trend of deindustrialisation of cannabis and calling in a new generation of industrial activity. Furthermore, a large proportion of the literature within the broader research base reveals that SA has launched various projects that need to be

developed; one of these projects is on an industrial scale, the farming and production of de-hulled hemp seeds for human consumption, for export market led by the Department of Trade, Industry and Competition and other departments, for example, the Department of Health (DoH), the Department of Science and Innovation (DSI), and the Department of Agriculture, Land Reform and Rural Development (also Agriculture Research Council, ARC) (Setlhako, 2022).

In the next sections, the discussions will dwell on the potential returns from cannabis projects.

### **2.3.2 Cannabis consumption scales**

A detailed examination by Burns and Wexler (2020) was very clear in pointing out that thirty-six in the USA allowed cannabis use and cultivation for medical or recreational purposes, despite its federal illegal status. The number of American adults in favour of the legalisation of weed has been increasing—from twelve percent in 1969 to thirty percent in 2000, and this figure has almost reached 70% in 2020. Over the period, decisions by a wide range of the country's state and local governments to classify cannabis provision as an "essential service" against the background of the COVID-19 pandemic underline the shift in the USA's cannabis industry sales which are projected at \$92 billion in 2021 (Burns and Wexler, 2020). Cannabis is grown throughout Africa, and it is used not only as an intoxicant but also as medicine and a recreational drug (Ndanyi, 2021). This has been addressed by a large number of authors in literature, among them (Duvall, 2019), who identified that the cannabis use persists, although there is a legal prohibition that has been imposed on cannabis production and consumption on the continent, over the twentieth century.

According to a large-scale study conducted by the UNODC, in 2005, 38.2 million Africans were estimated to have used cannabis, with the highest prevalence and increase in use being reported in West and Central Africa (Drugs and Crime, 2006). Supporting the use of qualitative research (Mametja and Ross, 2020), who postulated that though cannabis can treat medical conditions like cancer, it is also known to cause such short-term memory difficulty, paranoia, hallucinations, and even loss of coordination issues.

### **2.3.3 Job creation**

Data from several studies have pointed towards the potential benefits associated with the commercialisation of cannabis. This has elevated the discourse to the point whereby the legalisation of cannabis for medicinal, recreational, and industrial use in African countries looks a worthy path to lowering youth unemployment. A shift like this could have a good socio-economic impact by encouraging new business endeavours and job prospects (Setlhako, 2022, Nkwabi and Mboya, 2019; Department of Agriculture, 2021). For example, the 2018 US Farm Bill model can be adopted where cannabis cultivars having up to 0.3% 9-THC are grown for non-psychoactive chemicals, fiber, feed, and oil production. The main job creation occurs on the farm in terms of crop planting, crop maintenance, and harvesting (twice a year). This is in addition to other job creation in the form of agro-processing, transport and auxiliary services and support services. Commercialising cannabis is estimated to involve twelve percent of jobs in agriculture, sixteen percent in manufacturing and fifteen percent in management and administration, according to international studies (Junior, Gana, Adukeye, and Ahuchaogu, 2023).

### **2.3.4 Hemp, food chain, and textile sector**

Research conducted in Italy by Sorrentino (2021) showed that a chain jump from hemp can be the greatest innovation in the made-in-Italy food products industry. This is a 50-billion-euro export industry, considered one of the most solid and concrete pillars of the Italian economy. The author estimated that by 2017 the demand for hemp-based food will increase by 500%. Below are the types of foods which may produce using hemp seed, bread, pizza, oil, beer, milk, chocolate, ice cream and snacks. Sorrentino (2021) furthered that hemp seeds that often improve the richness of healthy salads are also used to produce a versatile flour useful in the production of different foods. In this way, the authors stress that hemp flour is up to 21% less caloric than traditional cereals and displays a bitter, rustic wholemeal taste. Potin and Saurel (2020) add that being gluten-free, it is an ideal grain for people with coeliac disease. Khan (2020) conclusively added that hemp as a protein crop can indeed form a very important part of world food security as a new source of plant proteins which can decrease the consumption of animal proteins. Hemp oil is obtained with cold pressing of hemp seeds. All these findings are in agreement with (Promhuad et al., 2022) who added that, the revival of the textile industry with hemp in Italy would have a great resonance

for the innovation of the use of these green materials from a sector that has always had a great tradition. Earlier, the textile industry was the owner of an area to the extent of about 90,000 hectares, and yarns of Italy were rated the best in the world.

### **2.3.5 Medicinal health**

For several years cannabis has been traditionally used for various purposes including medicinal, however, some scholars argue that the use of cannabis as medicine has not been rigorously tested due to production and governmental restrictions, resulting in limited clinical research to define the safety and efficacy of using cannabis to treat diseases. In a study conducted in Mexico (Campos, 2012) noted that CBD has achieved considerable worldwide fame thanks to its countless properties capable of treating ailments such as anxiety, lack of appetite, pain, inflammation, and much more. One aspect that has made it so popular is the fact that it is not psychoactive and that, unlike THC, it does not cause mental alterations or side effects to health; thus, a more systematic and theoretical analysis is required to determine the effects of frequent medicinal cannabis use.

Most available research suggest that legalisation could lead to increased rates of cannabis use and, in turn, adversely affect brain development, educational attainment, and long-term health. Cannabis, however, has also been identified as a pain reliever, anti-inflammatory, helps fight cancer, keeps the heart healthy, neuroprotective, flame acne, although, increased rates of cannabis use produce disorder and increase injury and mortality due to cannabis-impaired driving. Scientists, such as (Williams and Stephens, 2020) argue that CBD has become very popular in alternative medicine as it has, very few if any, contra-indications; the side effects that emerged during the research carried out by the scientists were minor. CBD has, in rare cases, resulted in dry mouth, changes in appetite, sleepiness, and diarrhoea. These side effects have almost always emerged because cannabidiol has interacted with other drugs for the treatment of ongoing diseases. CBD, hence, is indicated for the treatment of many diseases but it is advisable to be careful when already taking other drugs (Kicman and Toczek, 2020).

### **2.3.6 Cannabis environmental impact**

According to (Sorrentino, 2021), The Italian Law of 22 November 2016 legalised the cultivation of hemp, a cultivation that drives sustainable agriculture development

through the generation of new products with high benefits in the economy. Hemp cultivation is known to have a low environmental repercussion since it grows quickly, suppresses the weeds, and does not need pesticides. It has no specialised parasites and promotes pollination while enhancing the physical and chemical soil fertility (Adesina et al., 2020).

In the recent past, many countries have raised their interest in cannabis as a climate-friendly crop to curb climate change and desertification. For such reasons, the protagonist of the Italian agriculture becomes the hemp, which is already oriented towards the EU 2030 objectives that predict a reduction of 40% of greenhouse gas emissions compared to 1990 (Sorrentino, 2021). The great benefits of activating a new supply chain for use in different parts of the plant through hemp cultivation are received by the farmers, the environment, and human health. Although this very old plant, in the course of the next few years, hemp is expected to be one of the main actors of the green economy. In the agri-food industry, seeds are used for the production of flour, pasta, pastry, and oil, and the stem (woody part of the stem) in the green-building sector. The external part of the stem - its fiber - can find new applications to the textile industry while the inflorescences and the roots, the core of the stalk can find its place to the pharmaceutical and para-pharmaceutical industry. Presently, only the medical field with inflorescence's extraction for  $\Delta^9$ -tetrahydrocannabinol (THC) is not yet regulated by the Italian law.

Africa's weather conditions provide a perfect setting for cannabis growing and processing as reported by Junior, Gana, Adukeye, and Ahuchaogu (2023). The continent has adequate rainfalls, exposure to sunlight, increased temperatures, and proper relative humidity levels, all of which can favour healthy growth of cannabis. Africa has a balanced day length due to its being entirely within 35 degrees of the equator, preventing significant changes in sunlight and darkness. This ensures that there is a maximum exposure possible for the cannabis plant. In this sense, cannabis is able to be grown in temperatures between 14 to 27 degrees Celsius and can even withstand small freezing spells. This type of climate can promote a high yield of cannabis plants, resins, and flowers, in Africa (Junior et al., 2023).

Unlike the United States and Europe, whose harsh winters would place the entire cannabis outdoor production cycle within a single annual period (from May to

September) in these regions, in some parts of Africa, there exist good temperatures all through the year for the outdoor cultivation of cannabis (Visković, Zheljzakov, Sikora, Noller, Latković, Ocamb, and Koren, 2023). Notably, countries such as Ethiopia, Ghana, Kenya, Nigeria, and Mozambique benefit from the fact that they have regularly needed sunlight and moderate temperatures throughout the year, which suits growing outdoor cannabis as it is. Similarly, many countries have mediterranean or subtropical climates with mild winters and hot summers. This has seen to an increase in the length of outdoor growing seasons and is mainly applicable to those on the northern and southern rims of the continent—such as Morocco, South Africa, and Tunisia. Areas with rainforest and humid tropical climates such as Cameroon, the Democratic Republic of Congo, and Ivory Coast receive a lot of rain, and are of high humidity levels, all round the year (Junior et al., 2023; Visković et al., 2023).

## **2.4 Strategies, and procedures for regulating the commercialisation of cannabis in South Africa**

### **2.4.1 Efficient regulatory frameworks**

Establishing an effective legal framework, complete with enforceable regulations and sanctions reflecting the gravity of the crimes, is integral. This framework shall be transparent and shared among the general public, industry stakeholders, and law enforcement organizations. This also involves changing the law to remove any restrictions, which are now preventing cannabis commercialisation.

The Cannabis Act, 2018 grants the country widespread enforcement powers over any person who is licensed to handle cannabis pursuant to the Cannabis Act or any provincial legislation, as noted in a study conducted by Bowal, Kisska-Schulze, Haigh, and Ng (2020). The enforcement powers of Health Canada are intended to support the agency's public health and safety mandate. This has also been explored in studies by (Shanahan and Cyrenne, 2021) who added that Health Canada may require any licensee to do or refrain from doing any act, to provide the government with any information that relates to the licensee's activities, to take any measure necessary to ensure that the Act and the regulations are complied with, to inspect any place in respect of which a licence is applied the Cannabis Act allows Health Canada to suspend and revoke licenses (Bowal et al., 2020; Shanahan and Cyrenne, 2021).

Similarly, Ritchie-Baum, Levandowski, Toane, and Cramer (2023) carried out research on cannabis entrepreneurship in the United States of America entitled: *A guide to core concepts, resources, and research strategies*—wherein they argued that considering the United States does not wholly legalise cannabis, information on regulation and the observation processes should be done at a state level. This may imply a vast number of state governments' entities such as those responsible for health, commerce, and agriculture, and public safety, as well as other boards and authorities regulating different aspects of the cultivation, sale, and licensing to consumers of cannabis. One of such efforts is the development of a program initiated by the Medical Cannabis Control Program in Ohio, with joint efforts and collaboration from the State of Ohio Medical Board, the State of Ohio Board of Pharmacy, and the Ohio Department of Commerce (Ritchie-Baum et al., 2023). This will mean that, in most cases within the states where cannabis is legalised, there is some sort of delegation of authority to make state-level legal, policy, and budget decisions that will be given to cannabis control commissioners or some kind of board of appointed representatives. For accuracy and reflecting the most recent legislative and administrative changes, those structures shall be best explored at the time of need and on a state-by-state basis (Voy, 2023).

Elhamdaoui et al. (2019) also argue that in Europe, this situation is complex because each country has its laws governing narcotics, therefore cannabis. As a result, all of the European countries have assumed prohibitionist policy whose goal is to forbid the utilisation of cannabis in addition to its import and planting, exclusive of the Netherlands and Spain. In their research, de Brito Siqueira, Cremasco, Bahú, da Silva, de Andrade, González, Crivellin, Concha, Krambeck, Lodi, and Severino (2023) assert that although cannabis is illegal, a number of countries have given the green light to the medicinal use of cannabis, and the number of European countries authorising the use of drugs based on cannabinoids like Sativex is on the increase. Today, this preparation is available in over 17 European countries, whereas other European countries permit the use of dried cannabis in a medical context (de Brito Siqueira et al., 2023).

Cannabis was previously regulated under the Dangerous Medicines Act of 1973 (Government of Lesotho, 1978) which was repealed in 2008 by the Drugs of Abuse Act (Government of Lesotho, 2008) and paved way for the government to provide

access to certain drugs for medical and scientific purposes. A study done by (Bloomer, 2019) reported that the Lesotho Drugs of Abuse (Cannabis) Regulations 2018 have been operational since May 2018 with the intention of controlling, managing, and regulating the cannabis industry. The study revealed that there are three types of licenses that may be granted to operators in the cannabis industry; an operator's license for persons that are engaged in the activity of cultivation, manufacturing, supply or distribution, storage, export, import or transit within Lesotho, of a cannabis plant for medical purposes or scientific use or any other lawful use; second, an independent laboratory license for operating an independent testing laboratory; a transport license for purposes of transporting cannabis plant or cannabis resin (Bloomer, 2019). In addition, these artificial restrictions to market entry include licensing fees and administrative corruption, both of which could end up letting foreign capital capture the market, and in turn, force back small-scale farmers into the illegal market.

In earlier studies by (Bloomer, 2009), the International Narcotics Control Board (INCB, 2007) reported to the positive recognition of the government of Lesotho's efforts to control cultivation and with compliance to international drug control treaties, but at the same time urged in regard to the implementation of alternative development programs with the help of international donors. Over a decade later, though, that country has become the first in Africa to change existing laws and decriminalise the cultivation of cannabis for medical use. The Drug of Abuse (Cannabis) Regulations Act came into operation the following year, with the Lesotho Narcotics Board issuing licenses at a cost of about €30,000 (R581 610,87). Soon after, Zimbabwe followed suit, and Malawi has indicated that it will do so as well. They are expected to strike a balance of regulation and control that would protect the public at large against drugs, and at the same time, ensure that businesses enjoyed a conducive environment for legitimate economic activities expected to accompany the commercialisation of marijuana and hemp. The country is also expected to meet international obligations on drugs and related substances in terms of the UN Conventions that the government had appended its signatory to. There is also the need to prevent the spillover effect that commercialisation of cannabis may have in terms of negative subsequent or unintended negative consequences for the country and its citizens (Drugs and Crime, 2006).

## **2.4.2 Sustainable producer support system.**

In order to meet the demands of both domestic and international markets, cannabis producers are crucial to the sustainable cultivation of hemp and marijuana. Encouraging and assisting farmers to take part in the cannabis supply networks. This also entails integrating present-day "illegal" cannabis cultivators into the established system. For instance, this can be carried through government providing education and training programs which encompass topics on - occupational hazards, handling of equipment and gears during types of cultivation and production and manufacturing process, as well as the use of protective gear.

Legalisation of hemp was, however, recently observed in the United States of America (USA) in conformity with the provisions of the 2018 Federal Farm Bill when the country approved the agricultural production of hemp as an agricultural commodity (Adesina et al., 2020). A lifting ban to produce hemp in the US is newly introduced markets, still held back by present regulations and uncertain agronomic information and fertility guidelines. Sorrentino (2021) argues that in Italy, the law allows the cultivation of seeds that belong to specific varieties of cannabis registered in the European Community register; these must have a low THC content (less than 0.2%) and be authorised for industrial (business) cultivation. This choice was made precisely to ensure the safety of consumers who will buy the final product; however, the production process starts with the cultivation of cannabis plants. All these views are supported by Giupponi, Leoni, Carrer, Cecilian, Sala, Panseri, Pavlovic, and Giorgi (2020) who elucidated that the first phase is very delicate because it is not possible to use any seed, but it is necessary to follow the legislation of the country in which a farmer intends to start cultivation (Giupponi et al., 2020). It is important for farmers to be familiarised with the proper way of cannabis cultivation. For instance, Cultivation can then take place in 3 different ways which comprise the following:

### **2.4.2.1 Outdoor**

The most natural method of growing plants is outside where the aeration, lighting, and water supply are better, even if it is possible to have land available, cannabis can only be grown in the indicated months, and it is subject to atmospheric agents.

### **2.4.2.2 Indoor**

It is a more controlled method and takes place inside closed environments prepared for cultivation, where it is possible to intervene based on air, light, and water in an artificial space in which it is possible to cultivate all year round.

### **2.4.2.3 A greenhouse**

It is an intermediate method between the outdoor and the indoor since the greenhouse allows you to control the lighting, the air circulation, and the environment, but without creating an artificial space as happens indoors.

### **2.4.3 Enterprise and supplier development**

Establishing sustainable growth and development within the cannabis sector requires a focus on supplier and enterprise development. It is important to include the native cannabis growers and vendors in the value chain. The same holds true for recently established small-scale farmers from other regions of the nation that are highly impoverished. The development can be implemented through support from the Department of Small Business Development, Department of Trade, Industry and Competition (South Africa Department of Agriculture, 2021).

Several studies have revealed that cannabis sales are crucial for the growth and development of an economy as well as to accommodate consumers who are unable to grow the plant themselves (Norman, 2023). As a result, it is possible to investigate the possibility of making available land for cannabis cultivation for medical purposes in South Africa (Viviers et al., 2021). The literature pertaining to cannabis' regulations strongly suggests that people who are unable to grow should be advised on how much they can buy and sell through the legislation that has been passed; the consequences for breaking those rules should be severe. Future legislation must take non-homeowners into account; therefore, it must consider cannabis users who do not have homes with rooms for plant cultivation.

Diverse government bodies have expressed divergent views on the legalisation of cannabis SMEs citing medical, moral, and economic reasons, but a number of organisations and political parties have also been involved in the issue of decriminalising cannabis in South Africa (Parry and Myers, 2014). What actually

happened is that, according to Du Plessis, Visser and Smit (2013), in the course of their research, the South African National Cannabis Working Group (SANCWG), which is a civil society NGO, active in the implementation of the National Drug Master Plan, reported to the Department of Social Development's Central Drug Authority a position paper on cannabis legalisation in November 2013, in which the object of the exercise was 'to investigate the PESTEL viability of regulating cannabis in conformity with the spirit and intent of the Republic of South Africa's final constitution' (Du Plessis, 2013). Manu, Douglas, Ntsaba, and Tarkan (2021) conducted a study which revealed that the public health literature on cannabis consumption has emphasized the industry's persistent resistance against ineffective regulatory measures. These measures encompass self-regulation by the industry, public awareness campaigns, and individual accountability. Furthermore, the industry actively seeks alliances with government organisations and non-governmental organisations (NGOs) to influence the regulatory framework in their favour (Manu et al., 2021).

#### **2.4.4 Manufacturing and product development.**

Lowitt (2020) confirmed that a strategic intervention is needed to start building capacity and capabilities in an agricultural crop that will in all likelihood be inevitably exposed to increasing demand over time as the uses of industrial hemp in mainstream products are extended. For a variety of reasons, not every South African is fortunate enough to own a property, and not every homeowner is engaged in agriculture. The author went on to argue that the South African government might anticipate a considerable boost in revenue by regulating cannabis because the excise and customs' taxes on substances like alcohol and cigarettes are sometimes greater than those on other essential goods. South Africa may also apply some compliance measures like - not selling more cannabis than is allowed, not selling any other illegal narcotics, not marketing, or advertising the sale of cannabis, not selling to those who are younger than the legal age.

#### **2.5 Research gap**

Extensive research has been conducted on the potential use of cannabis, resulting in a substantial body of literature. However, there is a noticeable scarcity of literature addressing the concerns associated with cannabis entrepreneurship. Moreover, most studies primarily concentrate on the adverse effects of cannabis use on society,

particularly in the context of recreational use, rather than exploring its potential benefits in medicinal use. Addressing these gaps in the literature is essential for a comprehensive understanding of the potential of cannabis and its implications for its commercialisation.

### **2.5.1 Expected Contribution**

By addressing the research gap in cannabis entrepreneurship, this study aims to contribute to a more comprehensive understanding of the cannabis industry's dynamics and implications. The findings will inform policymakers, industry stakeholders, and researchers about the opportunities and challenges associated with cannabis entrepreneurship. Moreover, this study will shed light on the potential benefits of legitimising cannabis businesses, particularly in the context of medicinal use, and highlight avenues for responsible commercialisation while mitigating societal concerns.

### **2.6 Chapter summary**

The literature review explores existing knowledge on the perceptions of cannabis entrepreneurs in the context of South Africa's Cannabis Masterplan, with a focus on Limpopo Province. In this chapter, an extensive review of the literature is presented, which encompasses a wide range of relevant sources. The key themes, theories, and gaps in the existing research are carefully identified and discussed in relation to the research objectives of the study. The literature specifically focuses on the concept of cannabis entrepreneurship, shedding light on the challenges faced by entrepreneurs operating in the cannabis industry. Additionally, it highlights the potential benefits associated with cannabis business ventures and suggests intervention strategies to address the identified issues. This section addressed the unique aspects of the cannabis business, such as legal uncertainties, financial constraints, economic, social and government interventions, which influence entrepreneurs' perceptions.

## CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

### 3.1 Introduction

The main focus of this chapter is the framework that was used as the basis for the research conducted in this study. Research methodology, as defined by Mackenzie and Knipe (2006), refers to the standardised methods and techniques used to acquire knowledge. Social research commonly utilises qualitative, quantitative, and participatory research approaches (Firestone, 1987; Bergold and Thomas, 2012). This chapter explores the theoretical perspective, research approach, research design, and sampling techniques that were used to select participants. Additionally, it discusses the methods of data collection and analysis, as well as the ethical principles that were followed. Table 3.1 provides a visual representation of the study framework for this chapter.

**Table 1: A precis of the study framework**

A PRECIS OF THE STUDY FRAMEWORK	
Paradigmatic perspectives	<ul style="list-style-type: none"> <li>• Interpretivism</li> <li>• Hermeneutics</li> </ul>
Research approach	<ul style="list-style-type: none"> <li>• Qualitative research</li> </ul>
Design choice/design	<ul style="list-style-type: none"> <li>• Descriptive research design</li> </ul>
Sampling techniques	<ul style="list-style-type: none"> <li>• Snowball sampling</li> </ul>
Methodological strategy/plan	<ul style="list-style-type: none"> <li>• Semi-Structured interviews</li> </ul>
Data collection methods	<ul style="list-style-type: none"> <li>• Face-to-face interviews</li> </ul>
Data analysis method	Qualitative data analysis ATLAS.ti version 23 software

Quality criteria and Ethical consideration.	<ul style="list-style-type: none"> <li>• Credibility, dependability, transferability, and confirmability</li> <li>• Trustworthiness</li> <li>• Permission</li> <li>• Informed consent</li> <li>• Right to privacy, confidentiality, and anonymity</li> </ul>
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### 3.2 Paradigmatic perspectives

In this study, the researcher applies one of the five main philosophies in business and management, which are positivism, interpretivism, critical realism, postmodernism, and pragmatism. These philosophies are examined in terms of selecting appropriate methods for the intended study, such as data collection and the analysis of results.

#### 3.2.1 Positivism

Saunders, Lewis, and Thornhill (2007) define positivism as the philosophical standpoint of natural scientists, which involves deriving generalisations resembling laws from observed social reality. Moreover, the term "positivism" pertains to the importance of the information or evidence presented. Positivists emphasize a strictly scientific and empirical approach that aims to generate objective data and facts devoid of any human interpretation or bias (Saunders et al., 2007). Positivist researchers tend to employ a well-structured methodology that emphasizes measurable observations suitable for statistical analysis, in order to enhance the possibility of replication. Positivism does, on occasion, extend to other types of data gathering and aims to quantify qualitative information, for instance by subjecting information obtained through in-depth interviews to hypothesis testing (Pandey and Pandey, 2021).

#### 3.2.2 Critical realism

Critical realism seeks to understand the reasons behind our perceptions and emotions by exploring the fundamental realities that influence our observations. It was developed by Roy Bhaskar in the late 20th century as a reaction to both positivists direct-realism and post-modernist nominalism. Positioned between these two ideologies, critical realism provides a distinct viewpoint (Adom et al., 2016).

### **3.2.3 Postmodernism**

Postmodernism emphasizes the significance of language and power dynamics in questioning established beliefs and amplifying marginalised perspectives. Researchers in this field strive to uncover and challenge the power dynamics that uphold existing realities. This approach involves breaking down these realities to identify weaknesses, unexplored territories, and the gaps they create (Saunders et al., 2007, Adom et al., 2016). By deconstructing the elements of "reality" into the underlying ideologies and power relations, postmodernists aim to draw attention to what has been disregarded or excluded. The objective of postmodern research is to challenge established modes of thinking and knowing in order to validate and give voice to suppressed and marginalised ways of perceiving and comprehending.

### **3.2.4 Pragmatism**

Saunders, Lewis, and Thornhill (2007) argue that pragmatism highlights the importance of concepts that support action. From a pragmatist standpoint, research starts by identifying a problem and aims to offer practical solutions that can inform future practice. The researcher's values are crucial in the reflexive process of inquiry, which begins with doubt and a feeling that something is wrong and ends with the reconstruction of belief once the problem is resolved. Pragmatist researchers can differ in the degree to which their studies are 'objectivist' or 'subjectivist', as their focus is more on concrete outcomes rather than abstract distinctions. Pragmatists acknowledge the significance of reality, as it affects the application of ideas and information in effectively carrying out activities.

### 3.2.5 Interpretivism

In this light, the study uses interpretivism as a theoretical stance based on the five major philosophies. According to Saunders, Lewis, and Thornhill (2007), interpretivism highlights that human beings are different from physical phenomena as they create meanings. The objective of interpretivism research is to develop fresh, more in-depth perspectives on social contexts and worlds. As the researcher seeks to obtain detailed data on the participant's interpretations and meanings regarding how he understands the perceptions of entrepreneurs towards the Masterplan on cannabis in South Africa, it is only plausible that the theoretical perspective of interpretivism should underpin this study. This is simply because with interpretivism, a researcher can understand the multi-faceted ideals, attitudes, and views which define the actions of the participants. In simple words, Adom, Yeboah, and Ankrah (2016) state that humans are conscious beings and generate behaviour that is both meaningful to them and through the activities. To this effect, opportunities of multiple interpretations and perspectives on the subject matter of cannabis entrepreneurship are bound to arise. This is because the participants are unique individuals with their varied experience and standing (Adom et al., 2016).

The researcher attempted to take this complexity into consideration by collecting what is significant for the research participants. Phenomenology, hermeneutics, and symbolic interactionism are a couple of the approaches within the interpretivist paradigm (Willis, Jost, Nilakanta, 2007). Phenomenologists, in studying existence, are interested in lived experiences of the participants, that is, what the participants remember and interpret those experiences to be. Hermeneuticists are interested in the study of the cultural artifacts such as texts, symbols, stories, and images (Laverty, 2003). Symbolic interactionists belong to the tradition of pragmatist thinking and stand for the conception according to which meaning results only from the interaction between human beings. Symbolic interactionism mainly focuses on observing and analysing social interactions characterized by conversations, meetings, and teamwork (Annells, 1996; Nickerson, 2022). It is thus the connection that these approaches have in stressing the unique importance the meanings that individuals socially construct, of their world, and the need for the researcher to penetrate into the reality of the participants (Willis et al., 2007, Adom et al., 2016, Nickerson, 2022). Hermeneutics simply formed the foundation of this study because the researcher identifies

hermeneutics as an art of interpretation, and interpretation of experiences of entrepreneurs on cannabis entrepreneurship simply formed the basis of this study. Table 2 shows the characteristics of interpretivism:

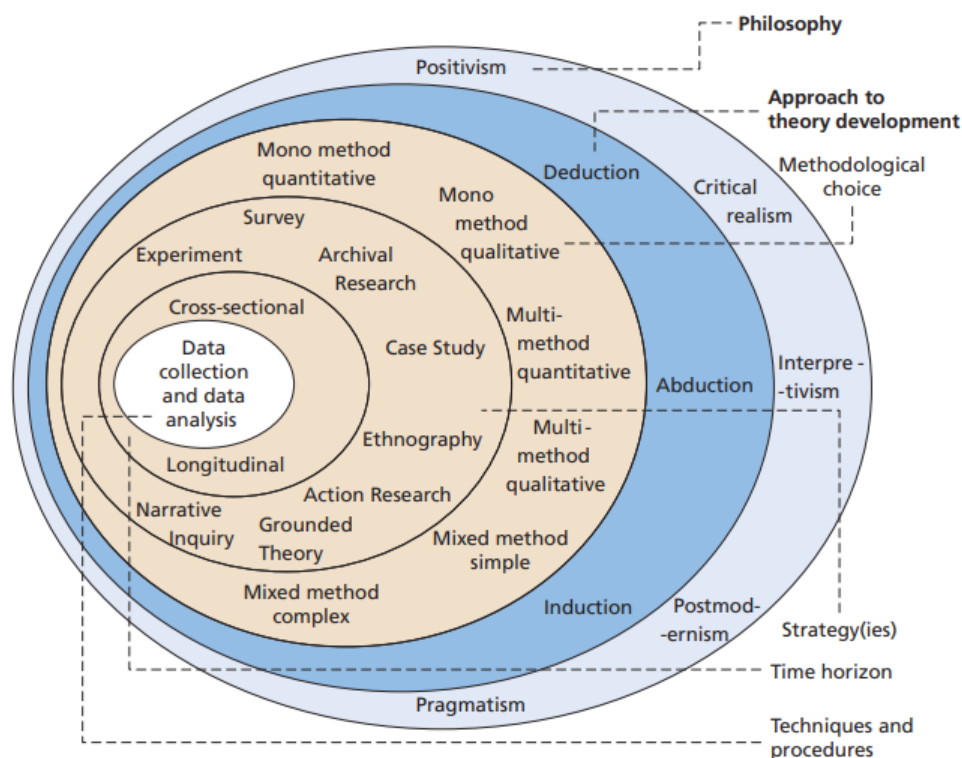
**Table 2 Characteristics of Interpretivism**

<b>Attributes and descriptions</b>			
<b>Ontology (nature of reality or being)</b>	<b>Epistemology (what constitutes acceptable knowledge)</b>	<b>Axiology (role of values)</b>	<b>Typical methods</b>
Complex, rich social construction made possible by culture and language's numerous interpretations, realities, and meanings processes, experiences, and practices are in flux.	Concepts and theories that are a concentration on narratives, stories, interpretations, and novel insights as contributions.	Value-driven study Researchers contribute to the subjectivity of the research. Key to contribution is the researcher's interpretations reflexive research	Commonly inductive. A variety of data can be analysed using small samples, in-depth examinations, and qualitative methods of analysis.

(Adopted from Mark Saunders, Philip Lewis, and Adrian Thornhill, 2007)

### **3.3 Presentation of research process**

In the previous analysis of various research types, it was mentioned that once the research problem or area of interest is identified, the researcher needs to determine suitable methods to address the problem. To guide the study, the research 'onion' developed by (Saunders et al. 2007) was utilised. This onion model depicts the array of options, paradigms, strategies, and steps that researchers undertake throughout the research process (refer to Figure 3.1).



**Figure 5** The 'research onion'.

Source: Mark Saunders, Philip Lewis, and Adrian Thornhill (2018)

### 3.4 Research Approach

A research approach can be thought of as a structure or blueprint of the research inquiry; it refers to the strategy or plan of action devised by the researcher to direct critical choices in the study. The three most common approaches used in specific research inquiries are - qualitative, quantitative, and mixed method. The distinctions between these strategies are explored by authors from various domains (Greener, 2008, Saunders et al., 2007).

#### 3.4.1 Qualitative research approach

In this study, the researchers employed qualitative research methods. As stated by Rashid, Warraich, and Sabir (2019), qualitative research involves collecting information about people's thoughts, actions, and creations in their everyday settings to gain insights into their perspectives. This type of research necessitates participants providing comprehensive responses. Qualitative research serves the purpose of comprehending individuals and their social environments by collecting and analysing

non-numerical data. It primarily focuses on small-scale social topics, utilising qualitative techniques for data collection and analysis (Rashid et al., 2019).

According to Asif (2013), qualitative research has both advantages and disadvantages that are influenced by factors such as the researcher's data collection methods, the type of data obtained, and the researcher's individual observations that can potentially alter information. Researchers opt for qualitative approaches because of the numerous benefits they provide:

1. **Flexibility:** In qualitative research, researchers have the flexibility to modify mechanisms if the available data does not yield the desired results.
2. **Human Experience and Observation:** Qualitative research serves as a complementary approach to the two operating systems of the human mind. It encompasses the subconscious mode of operation, which involves instinctive observations, as well as an interest in evaluating data sources before making decisions.
3. **Open-ended Process:** Qualitative research allows for the collection of data through an open-ended process, which can provide valuable insights into the emotional reactions that often shape human decision-making and behaviour.
4. **Creativity:** The interview process promotes respondent freedom, allowing them to express themselves openly. This fosters creativity in their responses and enhances the accuracy of the data collected.

### 3.5 Research design

Leedy (1997:195) defines research design as a systematic plan that outlines the process of collecting data. Willis et al. (2007) perceives it as a plan that encompasses the selection of subjects, research sites, and data collection procedures in order to address research questions. Their objective is to obtain reliable results through a well-structured research design. Muraina and Adeleke (2021) elaborate on research design as a strategic framework that establishes a connection between research questions and the execution and implementation of the research strategy.

#### 3.5.1 Descriptive research design

Descriptive research is a systematic approach that seeks to provide accurate descriptions of populations, circumstances, or phenomena. It focuses on answering questions related to what, where, when, and how, but not why. This type of research

design utilises various methods to study variables, without manipulating or controlling them, but rather observing and measuring them (Saunders et al., 2007). This study adopted the descriptive research design, its application in this study allowed the researcher to accurately describe the participants perceptions on the South Africa's cannabis Masterplan, thus, participants were able to articulate meaningful thoughts (positive and negative) on the current state of South Africa's cannabis enterprises.

### **3.6 Targeted population**

Pandey and Pandey (2021) provide a definition of a population as a collection of elements or instances, such as individuals, objects, or events, that meet certain criteria and are the focus of a researcher's efforts to generalise research findings. In this particular study, the population under investigation consists of individuals residing in the Limpopo Province, while the specific population targeted comprises entrepreneurs involved in the cannabis market who are 21 years of age or older, encompassing both males and females.

### **3.7 Sample**

A sample is a subset of a population studied by a researcher, the features of which will be generalised to the complete population. No research study can be designed to study everyone and everything all at once, hence, the researcher must make an acceptable selection of study elements (Pandey and Pandey (2021). The selection should be made while keeping in mind the study's objectives, the availability of potential participants willing to freely engage, and the time and fiscal resources judged necessary by the researcher in carrying out the study (Suri, 2011). Sampling, as described by Robinson (2014), is a crucial process that encompasses a series of activities. It involves the careful selection of a smaller subset of individuals from a larger population who possess the ability to offer dependable and enlightening insights pertaining to the matters under investigation.

#### **3.7.1 Sampling technique**

The samples for this study included the following:

The researcher uses the sampling technique to methodically identify, select, and choose a group of items for analysis. As a result, the researcher needs to decide which individuals will best represent the entire population, establish the criteria for inclusion,

determine the appropriate sample size, choose the sampling design and methods, and find suitable research locations for conducting the investigation (Rahi, 2017).

### **3.7.1.1 Non-probability sampling.**

Non-probability sampling refers to a sampling method in which the likelihood of each population member being chosen for the sample is not known (Rahi, 2017).

### **3.7.1.2 Snowball sampling**

According to Pandey and Pandey (2021), 'snowball sampling' is a method where the researcher initially contacts a small number of potential respondents and then asks them if they know anyone with similar characteristics who might be interested in participating in the study. The study conducted by the researcher specifically concentrated on utilizing the snowball sampling technique. At the start of the data collection process, the initial participants were requested to assist in identifying other potential participants who possess adequate and additional relevant knowledge regarding the issues being researched. In the study conducted by Etikan and Bala (2017), they also acknowledge the benefits of snowball sampling. They highlight that this method allows researchers to gather valuable data from potential participants who may have been overlooked. The researchers carefully selected individuals from the population who were both representative and knowledgeable about the research topic. With a sample size of 16 cannabis entrepreneurs, the snowball sampling method proved to be beneficial, especially when some potential participants were unknown to the researcher, as suggested by Suri (2011). This method was considered appropriate, as the cannabis market is hampered by various entry barriers. From the 16 participant's data saturation was achieved.

## **3.8 Data collection techniques and tools**

Data collection is a crucial step in research, where researchers collect the necessary data to address a research problem. According to Moser and Korstjens (2018), data collection involves gathering information from participants on various topics of interest to answer specific research questions, test hypotheses, and evaluate outcomes. However, these definitions have limitations in terms of their scope. Fusch, Fusch, and Ness (2018) argue that data collection encompasses a more comprehensive set of processes, including selecting the research site, determining the type of data needed,

selecting appropriate methods for data collection, and establishing procedures for gathering the required data.

### **3.8.1 Interview**

A semi-structured interview schedule was established for this purpose. The need for structured in-depth interviews to collect sufficient data motivated the use of this qualitative research method in data collection (Adeoye-Olatunde, and Olenik, 2021). An interview schedule, specifically for in-depth interviews, had to be prepared for this purpose. This type of interview allows for face-to-face interaction with respondents and usually yields a wealth of information (Adeoye-Olatunde and Olenik, 2021). This researcher was seeking to explore participants in-depth perceptions about the evolving cannabis market to better understand what is happening during a time of radical change in terms of, for example, the urgency of cannabis business restructuring, commercialisation, and common barriers in relation to South Africa's cannabis Masterplan implementation strategies.

## **3.9 Data analysis procedure**

The process of data analysis involves systematically organising and interpreting a large amount of collected data. This includes reducing the data, presenting it, and interpreting it, regardless of the research methods used. Researchers aim to draw conclusions and simplify the complexity of the data by examining empirical evidence and using reasoning (Pandey and Pandey, 2021).

### **3.9.1 Method of data analysis**

The qualitative data in this study was transcribed, coded, and categorised into themes using the ATLAS.ti version 23 software. ATLAS.ti.23 software aids in revealing intricacies within the data and conducting systematic analysis of complex phenomena found in text and multimedia data (Friese, 2019). This software offers various tools to locate, code, and interpret findings in the original data, as well as to assess their importance, weigh their significance, and visualise any intricate relationships among the findings.

## **3.10 Description of the research site**

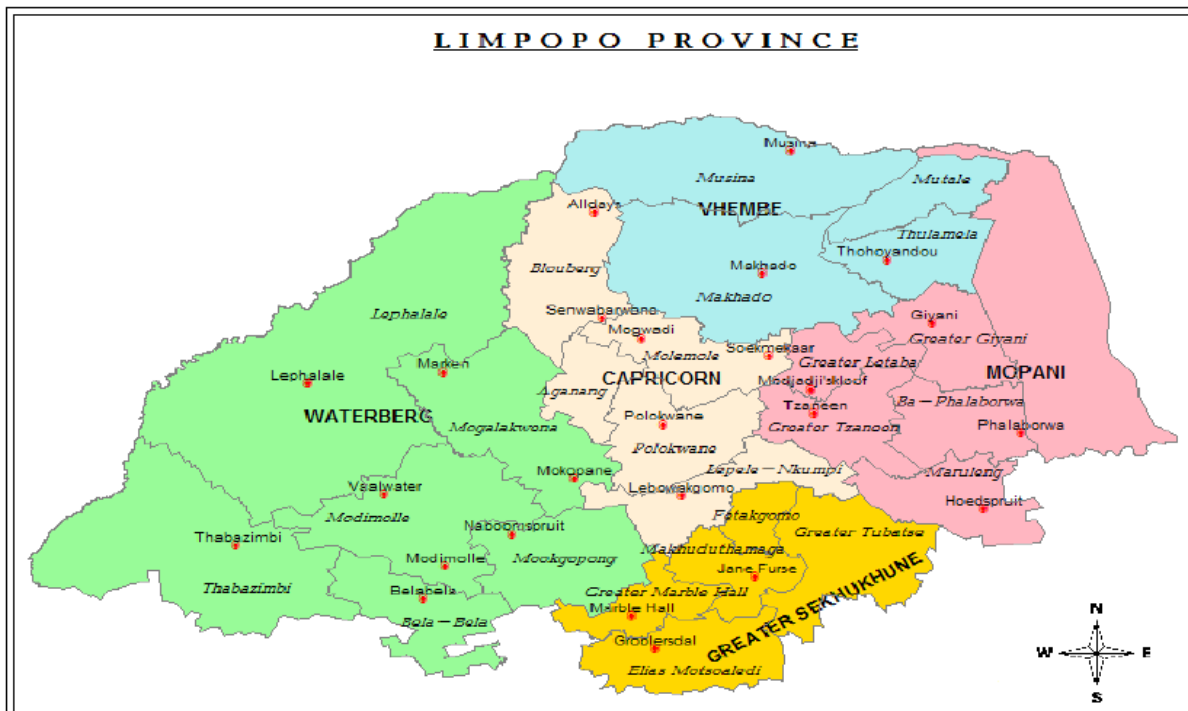


Figure 6 Limpopo Province: Overview Contacts Map Resources.

Source: [www.limpopo.gov.za](http://www.limpopo.gov.za)

The research was conducted in the Limpopo Province, which encompasses the former homelands of Lebowa, Gazankulu, and Venda, as well as parts of the Transvaal Province. After South Africa's first democratic election in 1994, the Limpopo Province was created as one of the nine newly established provinces. On June 28, 1995, the province's name was changed from "Northern Transvaal" to "Northern Province," along with two other provinces. In 2002, the name was changed again to Limpopo Province. Limpopo is divided into three ethnic groups: the Pedi, the Tsonga, and the Venda. The aim of the research was to explore cannabis entrepreneurs' perceptions on South Africa's cannabis strategy. It was considered critical to undertake the study in Limpopo Province as farming is one of the most common forms of entrepreneurship in most regions, hence, understanding the perceptions of cannabis potential entrepreneurs was, thus, beneficial to this study.

### **3.11 Quality criteria**

In their study, Poortman and Schildkamp (2012) highlight the significance of trustworthiness in qualitative research, specifically emphasizing the role of credibility in evaluating such research. Trustworthiness encompasses various factors, including credibility, transferability, dependability, and conformability, all of which play a crucial role in establishing the reliability of qualitative findings.

#### **3.11.1 Credibility**

In this particular context, credibility refers to the dependability and consistency of measurements, as well as the ability to compare outcomes across different iterations of a data collection tool. Essentially, it signifies the capacity to obtain consistent results regardless of the various methods employed by the researcher to evaluate the gathered data (Poortman and Schildkamp, 2012).

To ensure the credibility of the collected data in this study, the researcher implemented several measures. Firstly, the researcher made sure that the data was easily accessible for external verification of the research process. This accessibility promoted transparency and allowed other researchers or stakeholders to scrutinize the methods and procedures used in data collection. Additionally, the presentation of the data was meticulously structured to ensure accuracy. The researcher clearly indicated the sources of the data, making it simple to cross-reference initial findings and interpretations with the raw data provided by the participants. This transparency in sourcing contributed significantly to the credibility of the study's outcomes.

Furthermore, credibility was strengthened through extensive interaction with the participants. By deeply engaging with the subjects of the study, the researcher was able to develop a comprehensive understanding of the context and intricacies surrounding the data. Moreover, immediate note-taking after each interview helped accurately capture critical insights and observations, further enhancing the reliability of the data collection process (Poortman and Schildkamp, 2012). Overall, establishing credibility in this study was a multifaceted endeavor that involved transparency, meticulous data presentation, active engagement with participants, and thorough documentation practices. These measures collectively ensured that the research outcomes were robust and trustworthy, instilling confidence in the validity of the study's findings.

### **3.11.2 Transferability**

The researcher ensured that the study findings are available and applicable to other contexts, and that the questions to the respondents were similar and transparent, irrespective of demographic characteristics of participants in other studies. The questions asked in the interview guide were to fit the participants' perceptions on the cannabis commercialisation market. The researcher improved transferability by selecting resources and saturation data, as well as by providing a clear description of the data (Slevin and Sines, 1999, Hadi and José Closs, 2016). Saturation was reached when there was enough information to replicate the study and there was no further coding needed.

The study findings were made accessible and relevant to various contexts, and the questions posed to the participants remained consistent and clear, regardless of their demographic characteristics. The interview guide was designed to align with the participants' perceptions on the cannabis commercialisation. To enhance transferability, the researcher utilised selected resources and saturation data, while also providing a comprehensive description of the data. Saturation was achieved when sufficient information was obtained for study replication, eliminating the need for additional coding (Slevin and Sines, 1999; Hadi and José Closs, 2016).

### **3.11.3 Dependability**

The researcher embarked on a mission to enhance the reliability of the findings in this study by embracing a rigorous application of methodological principles. This endeavor was characterised by a meticulous approach to formulating research inquiries, refining the conceptual framework, and conducting a comprehensive collection and presentation of data. Immersing themselves in the essence of the research, the researcher dedicated significant effort to delineating the characteristics of the participants and the contextual nuances of the research settings. This involved a careful documentation of participant demographics, backgrounds, and any relevant contextual factors that could potentially impact the outcomes being investigated (Golafshani, 2003).

Additionally, the researcher diligently transcribed detailed field notes derived from both direct observations and interviews, thus capturing the richness and depth of the data firsthand. Furthermore, the researcher left no aspect unaddressed when documenting

the intricacies of the data collection methods employed. From outlining the specific techniques used to gather data to elucidating the protocols followed during data analysis, each step was meticulously recorded (Golafshani, 2003). This thorough documentation not only served to strengthen the credibility of the findings but also provided a roadmap for potential replication of the study by other scholars. The resulting research report exhibited coherence, clarity, and thoroughness. Through a logical and transparent narrative, the researcher ensured that the progression from research questions to findings was unequivocally traceable. This clarity not only facilitated understanding but also emphasized the researcher's commitment to transparency and accountability throughout the research process. By meticulously attending to every facet of the research endeavor, from inception to conclusion, the researcher instilled confidence in the integrity and reliability of the findings. Thus, the study stood as a testament to the transformative power of rigor in enhancing the trustworthiness of empirical inquiry (Golafshani, 2003).

#### **3.11.4 Confirmability**

The researcher took measures to guarantee the impartiality of the study's findings, ensuring they were derived from participants' responses rather than the researcher's personal motivations. Additionally, the researcher provided the supervisor with access to the data, transcripts, and field notes as evidence of unbiased results (Janis, 2022). The below aspects of confirmability were followed by the researcher:

##### **3.11.4.1 Objectivity in Data Collection**

The researcher utilised standardised methods for gathering data and implemented protocols to reduce any potential subjective biases that may arise during the data collection process. This may involve the utilisation of structured interview guides and well-defined coding criteria for the analysis of qualitative data.

##### **3.11.4.2 Reflexivity and Bracketing**

The researcher displayed reflexivity by critically analysing their own assumptions, beliefs, and values that could potentially impact the research process. By acknowledging and putting aside these influences, the researcher maintained objectivity and ensured that interpretations were grounded in the data rather than personal biases.

#### **2.11.4.3 Audit Trails**

The researcher maintained detailed audit trails documenting every step of the research process, including decisions made during data collection, analysis, and interpretation for instance the interviews were recorded. These audit trails provide transparency and allow external reviewers to trace the researcher's reasoning and decision-making process.

#### **3.11.4.4 External Review**

The researcher sought external review of the research process and findings from experts in the field who were not directly involved in the study. External reviewers can provide critical feedback and assess the reliability of the study's conclusions. For instance, the language editor gave some critical advice on some aspects of the dissertation.

### **3.12 Ethical Consideration**

The researcher took into consideration the following ethical issues:

#### **3.12.1 Permission**

Bazerman and Gino (2012) define ethics as the concepts of right and wrong, appropriate, and inappropriate, and good and bad. The researcher requested introduction letters from the University of Venda, Department of Business Management, and ethical clearance certificate. Interviews was conducted based on the permission of the interviewees. In the context of the Protection of Personal Information (POPI) Act, ethical considerations are crucial for ensuring that research activities involving personal data are conducted in a manner that respects the rights and privacy of individuals.

##### **3.12.1.1 Interviews based on permission**

The researcher conducted interviews based on the permission granted by the interviewees. This indicates that participants were adequately informed about the nature of the research, including how their personal data would be used and protected. By obtaining explicit consent from interviewees before conducting interviews, the researcher upheld principles of transparency and respect for individuals' privacy rights. Overall, by obtaining formal permission and ensuring that research activities were conducted with the explicit consent of participants, the researcher demonstrated a commitment to ethical conduct in accordance with the POPI Act. This approach helps

to protect the rights and privacy of individuals while allowing for meaningful research to be conducted.

### **3.12.2 Informed Consent**

The study conducted by Kassels and Merz (2021) discovered that obtaining informed consent entails adequately informing participants about the study's purpose and procedures. The researcher effectively communicated the potential benefits, drawbacks, and risks of the study to the participants or their legal representatives, as well as provided information about the research's credibility. The researcher actively sought the participants' consent and made sure they were aware of their right to withdraw from the study at any time.

### **3.12.3 Right to Privacy**

The concept of privacy emphasizes an individual's authority to decide when, to what extent, and under what circumstances their personal information should be shared or withheld from others (Gostin, 1997). In this study, the researcher took measures to protect the participants' dignity, employment, and reputation by ensuring that the information they provided would not cause any harm or embarrassment. During the interviews, participants were informed about the use of audiotapes, allowing them to halt the recording if they felt uncomfortable disclosing certain information. This approach respected the participants' right to control the amount of personal information they disclosed. Additionally, the researcher prioritised confidentiality by keeping respondents' names anonymous and securely storing the gathered information with encryption.

### **3.12.4 Rights of participation**

Van Rijnsoever and Hessels (2021) stated that it is crucial to protect participants from unwarranted physical or psychological suffering, distress, harm, danger, or deprivation. The authors emphasized the importance of granting respondents the freedom to decide whether or not to take part in a research project. Furthermore, the researcher ensured that participation was entirely voluntary and devoid of any coercion or influence.

### **3.12.5 Respondents' Right to Confidentiality**

The study placed great importance on maintaining confidentiality. Before the interviews, participants were informed about the steps taken to ensure their information would be kept private. Mayer (2002) views confidentiality as an extension of privacy, involving agreements to limit access to personal information. It was recognised that participants could only share their experiences if they had confidence that their involvement would be treated with the utmost confidentiality. The participants were assured that any information collected during the interviews would be kept confidential. Schulte and Sweeney (1995) define "confidentiality" as the ethical principle that protects participants' anonymity and prevents their identification from being revealed. This was done to establish trust between the researcher and the participants. Participants were informed that the information they provided would only be used for academic purposes and would not be connected to their personal information. Data was securely stored and protected from public access to maintain confidentiality.

### **3.12.6 Anonymity**

The protection of subjects' privacy was ensured through the provision of anonymous information. However, there are instances where respondent identification becomes necessary, such as when reminders need to be sent to non-respondents or when follow-up interviews are required with specific respondents. It is important to note that the interview guide did not mandate respondents to disclose their names.

### **3.13 Chapter summary**

This chapter has presented a summary of the research design and objectives. The discussions also focused on providing a detailed explanation of why the chosen methodology is appropriate for the study - perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan: Limpopo Province, South Africa. Highlighted also were - a presentation of the paradigmatic perspectives, the research process, research approach, research design, target population, research site, the sample, data collection techniques and tools, data analysis procedure followed to reach a conclusion, description of the research site, and quality criteria. Finally, the chapter provides a brief discussion on the ethical consideration adhered to during the study.



## CHAPTER FOUR:

### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

In this chapter, the major results of the study on the perceptions of cannabis entrepreneurs on South Africa's cannabis Masterplan in the Limpopo Province are presented. The results reveal a landscape shaped by various factors, challenges of commercialising cannabis, benefits of cannabis commercialisation in the Masterplan, and recommended strategies and procedures for facilitating the commercialisation of cannabis in South Africa. The results are visually represented using ATLAS. Ti.23 network diagrams which effectively capture the participants' views on the three key objectives, articulated earlier. The network diagrams visually encapsulate the pervasive impact of this challenge, illustrating how it permeates various aspects of the regulatory landscape.

#### 4.2 Challenges of Commercialising Cannabis

The first objective of the study was to determine the challenges of commercialising cannabis as perceived by the participants. ATLAS.ti network diagrams were employed to visually depict the interconnected themes and perspectives that emerged from the interviews. (see the ATLAS.ti network diagram below)

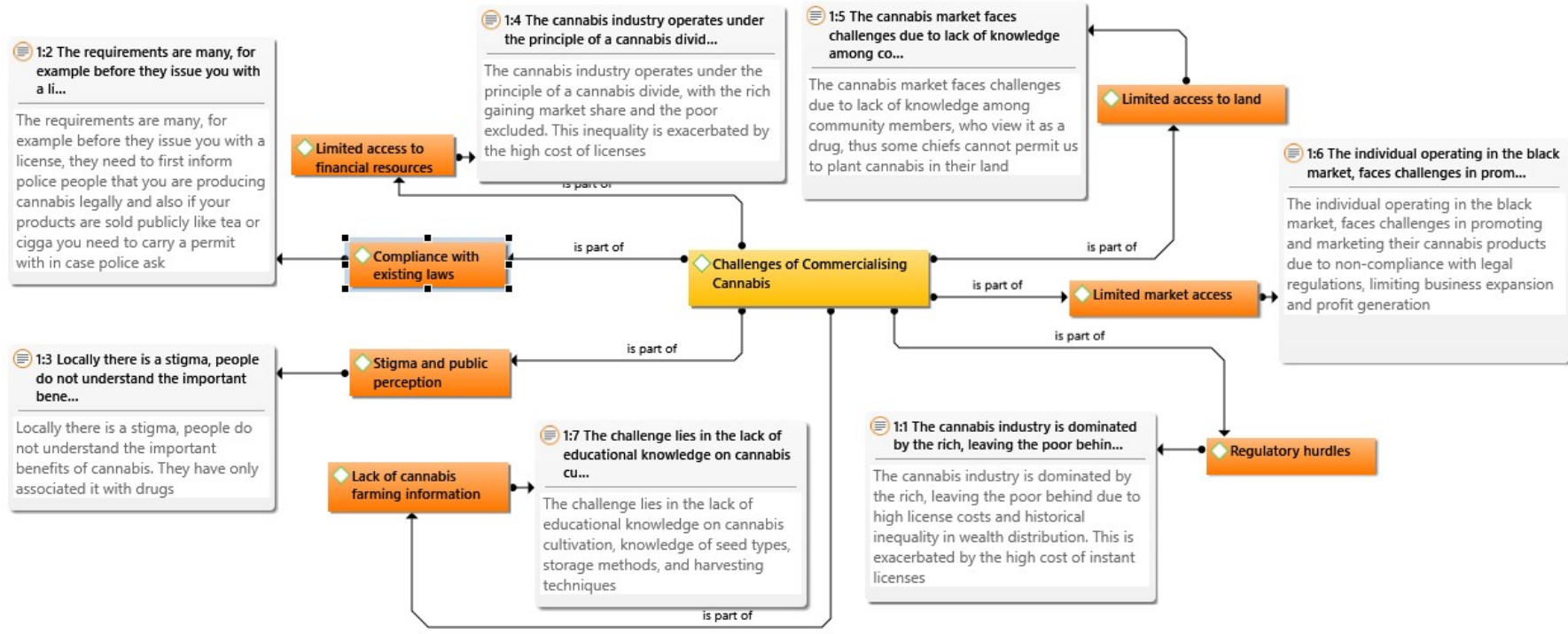


Figure 7: shows a visual representation of cannabis commercialisation challenges using ATLAS. Ti.23 network diagrams

Source: researchers own construct.

#### 4.2.1 Regulatory Hurdles

The most important of these considerations to emerge from participants was the high cost of obtaining a license. Participants suggested that this may be one of the most significant barriers to entry for potential cannabis entrepreneurs - an obstacle that may keep diversity and, especially, widespread innovation from occurring in the cannabis sector. They assented that the cost of licensing, in addition to being overpriced, has multi-faceted implications beyond mere financial implication. Its 'scares' potential entrants and not only that but also questions inclusivity and equitable participation within the cannabis industry. One cannabis entrepreneur expressed that point:

*“What I have seen as a challenge is that the current regulations are causing what we call the ‘cannabis divide’ which is characterised by the rich versus the poor, with the rich gaining access to the market and the poor excluded due to high costs for licenses. This inequality is particularly pronounced among black people, who cannot afford the required licenses. Additionally, the issue of land access is a sensitive one, as cannabis cultivation requires access to land, which is not readily available to those without resources”.*

Results by Nkala (2018) showed that Zimbabwe National Farmers' Union president, Monica Chinamasa, was taken by surprise at the government's announcement to legalise cannabis production. The President thought that the local farmers will not go into cannabis farming because the licence to cover the production requirements be costly. The licenses will be valid for the period of five years, renewable if the producers meet conditions as set out in the law and the applicant shall pay a licence fee not exceeding US, \$50 000 (about R711000), while manufacturing licences in Malawi and Lesotho have been competitively priced at \$10,000 and \$35,000 respectively. These combined with other highly prohibitive unrelated financial burdens attached to such licenses make any projected economical gains hardly attainable by small manufacturers and farmers (Kourgiantakis et al., 2023). Another vital issue is on the entry barriers that naturally exist in the cannabis industry which always favour the gigantic foreign entities. The variation of the expenses for starting a cannabis business in Africa is huge depending on the countries they invest in. This echoes Kilmer, Caulkins, Kilborn, Priest, and Warren (2021) sentiments on the general obstacles facing legal cannabis cultivation, calling for subtle policy interventions to ensure accessibility to the industry as well as its diversification (Kilmer et al., 2021).

#### 4.2.2 Compliance with Existing Laws

The primary hindrance that participants identified as having a significant impact on the development of the cannabis market is the complex laws and policies that govern it. Anyone who is familiar with the cannabis industry in South Africa must know that one of the highest barriers to entry is being a local in that society. It takes up to a whole year to register as a cannabis entrepreneur and needs a lot of finance to be already invested. One participant stated that, the officials who sit in the higher ranks of the government do not understand the cannabis market since they are not aware of it; since cannabis is illegal to grow or sell in retail for ordinary persons, the only management would be the use of it for personal benefit. Participants argued that the lack of clear guidelines and regulatory frameworks have led to operational inefficiencies and threats of closure. A cannabis entrepreneur said:

*“As it stands now SAHPRA grants a seventeen-page licenses for medical cannabis production and sale activities, including cultivation, extraction, manufacturing, import, export, and distribution, excluding recreational cannabis sale and consumption”.*

This is consistent, with what the literature accentuates, which is the importance of having laws in place to support the expansion of the legal cannabis industry (Hendy, Mauri and Creary 2023). Broadly, the expensive licensing fees and complex legal requirements are closely related as they both have implications, for the industry’s growth. This highlights the urgency of tackling these challenges to create an environment that promotes sustainable development in the legal cannabis industry (Kilmer et al., 2021).

A study conducted in Canada by (Junior et al., 2023) argues that cannabis legalisation's effects are diverse, with significant controversy surrounding mental health and public policy. As more jurisdictions legalise medical and recreational cannabis use, cannabis policy is rapidly evolving globally (Kourgiantakis et al., 2023), although, the government has also put complex regulatory policies for cannabis consumption. A recent investigation by Owusu, Arthur, and Aboagye (2021) has revealed that Ghana has recently implemented the Narcotics Control Commission Act, 2020 (Act 1019) as a replacement for the previous Narcotic Drugs (Control, Enforcement, and Sanction) Act, 1990, PNDC Law 236. Under the previous law, possessing or importing narcotic substances was considered a criminal offense,

carrying a harsh punishment of up to 10 years in prison (Owusu et al., 2021). A study done by (Nkala, 2018) made similar comments stating that possessing and using cannabis, for recreational purposes is still illegal in Zimbabwe. Those found guilty of this crime can face up to twelve years of imprisonment. Adams, Rychert and Wilkins (2021) argue that certain advocates within the cannabis industry have used this comparison to question the proposed regulations surrounding legal cannabis. For instance, New Zealand serves as a captivating subject for analysis due to its recent development of the medical cannabis industry and its consideration of legalising cannabis use through a nationwide referendum in October 2020. In recent years, numerous companies specialising in medicinal cannabis cultivation have emerged in New Zealand, primarily focused on meeting the demands of the medicinal market. However, if additional modifications are implemented to the cannabis laws, these companies may have the opportunity to expand their production capacity to meet the needs of the recreational market as well. This potential expansion could significantly impact the overall cannabis industry in New Zealand (Adams et al., 2021).

#### **4.2.3 Stigma and Public Perception**

The findings from the current participants identified cannabis stigma, indicating how public perceptions present hurdles to the sector. Furthermore, this research's findings offer light on the continued prevalence of cultural stigma associated with cannabis, exposing an important facet of public view and despite attempts to change public attitudes regarding cannabis, a sector of the community still views marijuana as a dangerous substance. This long-standing cultural perspective, as revealed by the survey, has a significant impact not only on general social sentiments but also on the operational landscape of cannabis entrepreneurs. One representative of Marijuana Board of South Africa (MBOSA), who is also a legal cannabis entrepreneur added that:

*"In our communities, there remains a stigma, and many people are unaware of the numerous benefits of cannabis. They've solely connected it with drugs. Personally, as a parent, I would not expose children to dangerous substances. That's when we need to educate people about the plant's importance and use."*

The work of (Junior, Gana, Adukeye, and Ahuchaogu, 2023) is cited to anchor this assertion, emphasising the enduring nature of cultural stigma and its repercussions on the cannabis industry. The findings highlight the cascading impacts of this cultural

stigma, shedding light on how it affects entrepreneurs' ability to operate openly and gain acceptance in their individual communities (Junior et al., 2023). The term "entrepreneur" refers to a wide range of those actively participating in the cannabis industry, including cultivators, distributors, and merchants. The cultural prism through which cannabis is regarded, thus, becomes a critical determinant in influencing entrepreneurs' experiences and success paths (Bacon, 2022). This nuanced perspective adds depth to the understanding of the challenges faced by those operating within an industry marked by historical prejudices and stigmatisation. Using a qualitative research methodology, Ugwu and Dumbili (2022) conducted an examination of the enforcement practices of Nigeria's National Drug Law Enforcement Agency (NDLEA) regarding cannabis and other drug regulations. The authors highlight the collaboration between the NDLEA and the police in carrying out their duties, but also shed light on the employment of both legal and extra-legal methods by these agencies. A significant concern raised by the authors is the discrimination and marginalisation faced by cannabis users due to the societal stigma associated with the drug. This discrimination is further exacerbated by the fact that the police frequently arrest and subject both perceived and actual users to brutalisation. Despite the harsh punitive measures implemented against cannabis use in Nigeria, the drug continues to be readily available and widely used.

#### **4.2.4 Access to Financial Resources**

Another main point is the financial challenges faced by entrepreneurs, such as limited access to funding and banking services, due to the non-legal status of cannabis. The findings from the participants interviews highlighted the considerable financial challenges that entrepreneurs face as they navigate the complex cannabis business market. The cited obstacles, particularly limited access to money and financial services, stand out as significant impediments stemming from cannabis' non-legal status. This finding serves as a devastating reminder of the economic limits that entrepreneurs entering the cannabis industry confront, which go beyond traditional entrepreneurial difficulties. The participants stressed the complex nature of financial constraints inherent in cannabis business, underlining the critical requirement for money to not only start, but also sustain a cannabis farm. The financial demands, as illuminated by the research participants, create a multifaceted barrier that goes beyond

the typical considerations encountered by entrepreneurs in more conventional industries. In agreement, a member of the community asserted that:

*“The cannabis industry has the principle of cannabis divide where by it is the rich versus the poor and only the rich are allowed to enter such a market but the poor are left outside, why because now the licence for instant is very expensive, to get the license or permit you must have a lot of money, of which we know that historically we live in a country where there is a lot of disadvantages in terms of distribution of wealth which is inequality, where in there is a group that has been getting a lot of wealth and a group that has not being getting. As black people we have been disadvantaged and we cannot afford the exorbitant amount required and not all of us can afford taking loans from the bank to get the license”.*

In corroboration with the study’s findings, existing literature, notably the work of Ritchie-Baum et al. (2023) is cited to underscore the established understanding of the capital-intensive nature of the cannabis industry. Ritchie-Baum et al. (2023) research serves as a foundational reference, providing scholarly backing to the empirical observations made during participants’ interviews. This alignment with existing literature not only enhances the credibility of this study but also contextualizes the financial challenges within a broader theoretical framework, deepening our understanding of the economic dynamics at play in the cannabis entrepreneurial landscape. Conspicuously, the revelation of limited access to banking services, due to the non-legal status of cannabis, introduces a regulatory layer to the financial challenges faced by entrepreneurs (Hendy, Mauri and Creary, 2023). This regulatory impediment not only restricts the flow of capital but also exacerbates issues related to financial transparency, hindering the ability of cannabis entrepreneurs to operate with the same financial infrastructure enjoyed by businesses in other sectors (Hendy et al., 2023). One community member said:

*“SAPRA requires a lot of money for cannabis registration process, you need to come to some understanding about growing cannabis, for instance the most common planted cannabis is called purple haze which has THC; this is very expensive to be allowed to farm and can be used to produce various things. There is also cannabis hemp, which is used for textile, you can get the license for R900 but to meet the other requirements can be expensive. There is also cannabis called ‘hob’ which is used for*

*alcohol although most people are not familiar with, just to mention a few, however all these complexities pose a huge challenge to us entrepreneurs on operating the cannabis business legally.”*

This study, thus, highlights the interconnectedness of legal, financial, and operational challenges, painting a comprehensive picture of the obstacles faced by those engaged in cannabis entrepreneurship.

#### **4.2.5 Access to Land**

Another key aspect highlighted in the study is the necessity of access to land for cannabis cultivation. The significance attributed to secure land emerges as a fundamental determinant for the establishment and sustained success of cannabis farms, revealing a nuanced layer of complexity within the entrepreneurial landscape of the cannabis industry. Participants were of the view that:

*“Before you even get the license, they must come and do several inspections. They need land for a 2-hectar farm. Security of premises you need to make sure that you do not have break-ins by tsotsis who will come and steal your cannabis plants since it is in demand. This inspection also includes an electric fence with a detector that sense if the fence is cut, or something wrong might be going on. Also, accessibility of the land; it must be far from everyone because of security reasons”.*

*“You need permission from the chief. People or the community member are clueless about the cannabis market which makes it hard for someone to persuade them, for example, you can request for a land but after the chief hear that is for cannabis they can step back. So, lack of knowledge is also another challenge, especially of people who are suffering from unemployment at home as they know it as a drug”.*

This finding elevates the discourse on cannabis entrepreneurship beyond financial considerations, stressing the complex interplay between spatial resources and the viability of establishing a successful cannabis firm. The acknowledged requirement for safe land is consistent with broader issues within the agricultural industry, as alluded to throughout this study. This parallel is substantiated by referencing the work of (Norman, 2023) who have delved into the multifaceted challenges faced by agricultural practitioners. Giupponi et al. (2020) provide evidence that the alignment of the cannabis industry's requirements with broader agricultural considerations underscores

the universal importance of land access for successful cultivation, emphasizing the broader applicability of agricultural principles to the unique context of cannabis farming. As elaborated in this study earlier on, the South African cannabis Masterplan outlined the approximate expense of R6 million to establish a facility that complies with the required licensing standards and to prepare a license application. Furthermore, it is obligatory for these facilities to surround their lands with a fence that is 2 meters in height and ensure that the gates always remain locked, throughout the day and night. (Department of Agriculture, 2021). It has been conclusively shown that these measures are seen as creating high barriers to resource-poor farmers and companies that would like to enter and participate in the hemp industry. A study by Visković, Zheljzkov, Sikora, Noller, Latković, Ocamb and Koren (2023) identified the importance of land access as an environmental dimension to the discourse. Sustainable and responsible land use practices become imperative considerations, in aligning the cannabis industry with broader global concerns regarding environmental conservation and ethical farming practices. This environmental consideration becomes increasingly relevant as the cannabis industry strives to establish itself as a responsible player, within the broader agricultural landscape.

#### **4.2.6 Limited Market Access**

Cannabis' regulated status restricts market access, hence, due to the restricted structure of the cannabis sector, entrepreneurs have hurdles in promoting their products. The current participants highlighted the significant challenges they have in properly promoting their products, which arise mostly from the cannabis industry's strict regulations. This revelation illustrates a significant factor in the struggle for market viability in a sector where legal constraints not only influence the operational landscape but also limit entrepreneurs' capacity to promote and sell their products in the traditional market context. This revelation highlights a critical dimension in the struggle for market viability within a sector where legal restrictions not only shape the operational landscape but also impede the entrepreneurs' ability to promote and sell their products in a conventional market setting. A member of the community retorted, said:

*“It is very difficult to fully market my products, because as an illegal seller there are people who always report to the police that I am selling recreational cannabis without the permit which always put me at risk. However, there are some entrepreneurs who are safe to sell and market publicly because they buy cannabis products from a legal cannabis farmer and resell, which is very expensive since their cannabis is indoor and specifically THC, thus their target market is very limited, and I cannot afford that”.*

The identified challenges in marketing within the cannabis industry align with existing literature, as referenced through the work of Berg, LoParco, Cui, Pannell, Kong, Griffith, Romm, Yang, Wang, and Cavazos-Rehg (2023). This serves to contextualize and validate the empirical observations made by the study participants, grounding the findings in a broader theoretical framework. Berg et al. (2023) research provides insights into the intricate measures that cannabis entrepreneurs must take in navigating the complex interplay between legal frameworks and market dynamics. This alignment with existing literature enhances the credibility of the study, demonstrating the universality of the challenges faced by entrepreneurs operating within the regulatory constraints of the cannabis industry. Anderdal Bakken and Kirstine Harder (2023) shared similar views stating that legalising cannabis requires local and export markets to absorb produced products. Local markets will initially dominate, but as countries relax restrictions, more export opportunities will arise. Lowitt (2020) postulated that South Africa currently imports cannabis products, but the country is replacing imported products with locally produced ones. In Africa, the regulated nature of the cannabis industry introduces a unique set of marketing challenges that extend beyond the conventional hurdles faced by entrepreneurs in other sectors. (Kilmer and Pacula, 2017) enlightened that compliance with stringent regulations, varying across jurisdictions, becomes a central concern for cannabis entrepreneurs seeking to bring their products to market. The limitations on advertising, packaging, and even the communication of certain product attributes, contribute to a constrained marketing environment, demanding a level of adaptability and creativity that goes beyond the norm. One of the community members asserts that:

*“As someone who is currently operating in hiding, some call it the ‘black market’, it is very difficult for me to promote and market my products since I am not abiding by the legal cannabis regulations. This factor restricts me to sell my products to a bigger*

*market, hence, most of my buyers are based on referrals and potential customers, thus, the complex barriers to market-entry limit my business expansion and profit generation.”*

Anderdal Bakken and Kirstine Harder (2023) contend that constrained market access due to the controlled status of cannabis has ripple effects on brand visibility, consumer education, and the overall development of a competitive marketplace. All these studies corroborate the findings of (Ritchie-Baum et al., 2023) who indicate that cannabis entrepreneurs not only contend with the limitations imposed by regulatory bodies but also face the uphill task of destigmatizing their products in a society that has historically viewed cannabis through a lens of scepticism and prohibition. Concurrently, this dual challenge underscores the intricacies of marketing within an industry that is both emerging and subject to stringent oversight.

#### **4.2.7 Lack of farming information on cannabis**

The participants' interviews revealed an important issue: a lack of thorough information on how to grow cannabis. Interviewees constantly stated that the lack of clear standards, particularly for rookie producers, is a key barrier to successful cannabis cultivation. This dearth of information covers a wide range of topics, including optimal growing conditions, strains appropriate for specific regions, pest management strategies, and effective harvesting methods. Insufficient understanding can have far-reaching effects, resulting in inadequate yields, quality concerns, and legal complications, stifling the cannabis industry's growth. In support of this, one participant said:

*“Another challenge is the issue of educational knowledge on growing cannabis process for instance, lack of knowledge on the seed and how to plant cannabis, because since South Africa is not a country where cannabis is fully grown, we have been left with a knowledge gap when it comes to growing cannabis. We are also unfamiliar with kind of seeds we can plant, also how we store them and harvesting as well; we are not much informed”.*

Literature supports these findings, as scholarly research indicates that the cannabis industry is still in its infancy, and there is a notable lack of standardised and accessible information on cultivation practices (Zandkarimi, Decatur, Casali, Gordon, Skibola and

Nuckolls, 2023). Academic studies highlight the knowledge gap among growers, emphasizing the need for educational resources and extension services to enhance cultivation practices (Beckman, Castañeda, Rivas, and Schenker, 2023). Agricultural research on cannabis remains limited compared to other crops, underscoring the urgency of addressing this knowledge deficit to facilitate sustainable and responsible cannabis farming. The integration of evidence-based guidelines and educational initiatives is crucial, therefore, to empower cultivators, enhance industry standards, and foster a more informed and resilient cannabis farming community (Beckman et al., 2023, Zandkarimi et al., 2023). This is partly consistent with the study done by (Sorrentino, 2021) who pinpointed that the Italian Law of 22 November 2016 has legalised the cultivation of hemp, which has resulted in the promotion of sustainable agriculture and the development of innovative products that offer substantial benefits in a circular economy. This legalisation allows for the operation of different parts of the hemp plant, creating a new supply chain that is advantageous for farmers, the environment, and human health. Polson, Bodwitch, Biber, Butsic and Grantham (2023) argue that the outcomes of the largest survey ever conducted among cannabis farmers in the United States demonstrate their inclination towards embracing robust environmental safeguards, despite facing significant hurdles in meeting regulatory requirements (Polson et al., 2023).

#### **4.3 Cannabis Commercialisation Benefits in the South Africa's cannabis Masterplan**

The second objective of the study was to determine cannabis commercialisation benefits in the South Africa's cannabis Masterplan. ATLAS.ti network diagrams were employed to visually depict the interconnected themes and perspectives that emerged from the interviews. (See the ATLAS.ti network diagram below)

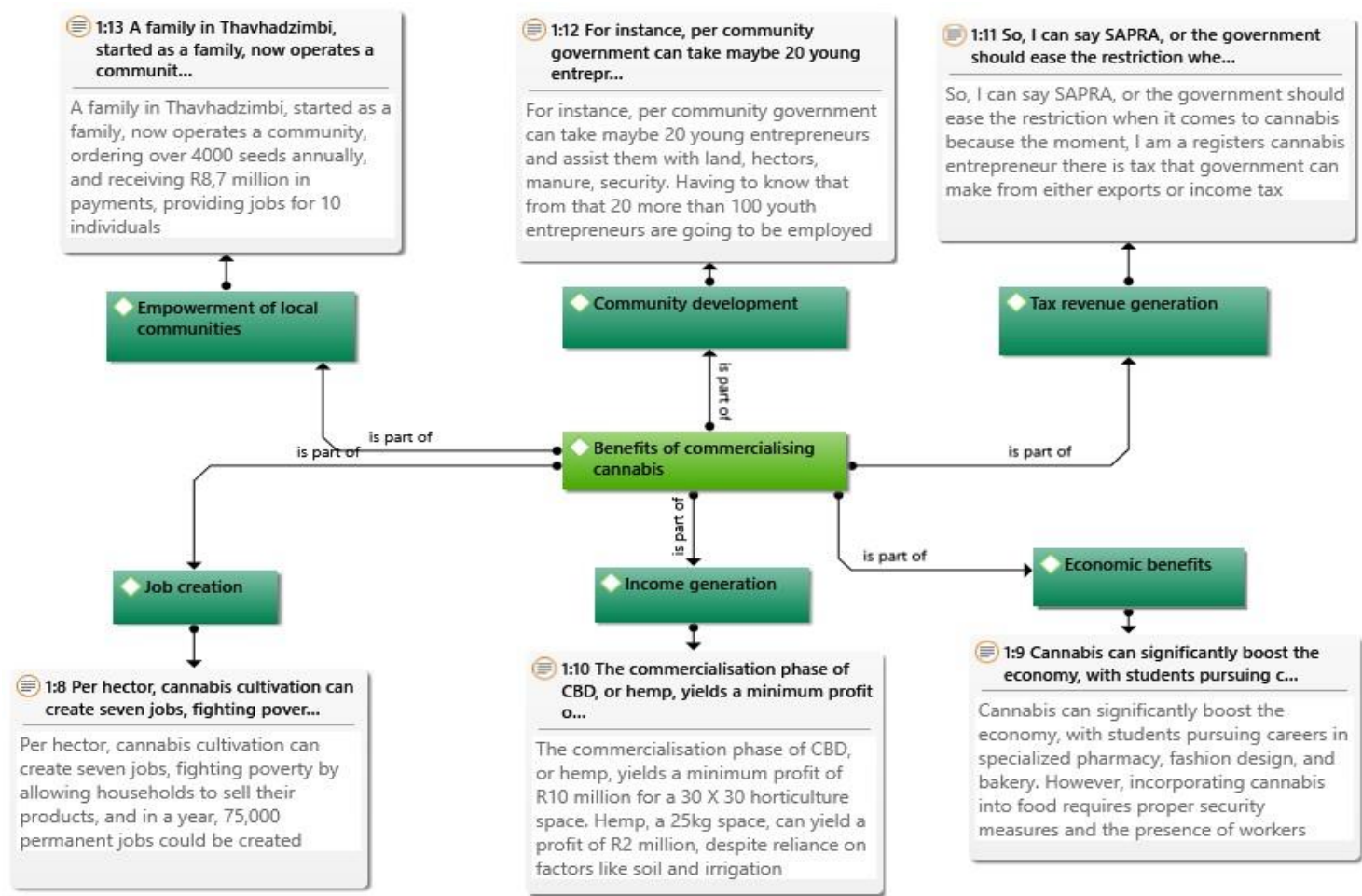


Figure 8: shows a visual representation of cannabis commercialisation benefits using ATLAS. Ti.23 network diagrams

Source: researchers own construct.

### 4.3.1 Job creation

Participants in this study believed that the cannabis business had the potential to outperform traditional crops in terms of employment creation, making it a viable option for rural economies. They elaborated on a variety of ways that cannabis can significantly increase employment. Establishing cannabis cultivation, processing, and distribution facilities would provide work prospects for local populations; this may include positions in agriculture, industry, retail, and administration. This means that cannabis can create a wide range of products, including clothing, biofuel, food, shoes, ceiling boards, bricks, food, paper, biodegradable plastics, paint, insulation, and other useful items. The above-mentioned statement is supported in the following quotation:

*“South Africa's unemployment problem can be addressed through allowing legal cannabis trade, which can create employment opportunities for farmers. This could end poverty and unemployment in South Africa and Africa”.*

Key informant interviews from a study area by Junior, Gana, Adukeye, and Ahuchaogu, (2023) highlighted the potential for job creation through cannabis commercialisation. The interviews explored the various stages of cannabis production, from cultivation to processing and retail, providing insights into the diverse employment opportunities. Literature supports this notion, as studies have shown that the cannabis industry has been a significant source of employment in regions where it has been legalised. For instance, the study conducted by (Junior et al., 2023) designed a novel conceptual paradigm, labelled the PESTLE analysis; the analysis uncovered that the estimated number of full-time workers in the cannabis industry exceeds 150,000. The authors proposed that this theoretical framework has the capacity to provide valuable guidance for African countries considering the legalisation of cannabis farming. A study conducted by (Ritchie-Baum et al., 2023) revealed that the production market in Canada contributed CAD\$5.9B to the economy and employed 45,804 individuals as of April 2021. Furthermore, the potential for job creation, through cannabis commercialisation in the Limpopo Province aligns with findings from other regions where cannabis has been legalised. The diverse employment opportunities, economic impact on local communities, and considerations for social equity underscore the multifaceted benefits that can be derived from a well-regulated cannabis industry. It is essential, however, to remain mindful of potential

challenges and regulatory considerations to ensure a balanced and sustainable approach to job creation in the region.

### 4.3.2 Economic Benefits

The suggestions put forward by the key informants in the Limpopo Province revealed the potential for cannabis commercialisation to generate employment opportunities aligns with existing literature illustrating the economic benefits of the cannabis industry. Cannabis is an industry on its own, it comprises of various segmentations for instance - manufacturing, processing, cultivating, producing and other various components which can enormously contribute to the country's economic growth, not only locally but nationally as well. In regions where cannabis is legal, tourism related to the cannabis industry can bring in additional revenue. Local communities can benefit from increased tourism by providing services and experiences to visitors. One participant narrated that:

*“Cannabis can immensely grow the economy, for example, a student can decide to be a cannabis specialised pharmacist, doing their own medication using cannabis, some can decide to do fashion design creating clothes using hemp. Someone can say I am going to open my own bakery I want to add cannabis to my bread to do something new and different. Also, if I am planting in my farm, I need to have workers and get a security company so that no one can temper with my cannabis plants”.*

Research from diverse regions has consistently demonstrated the capacity of the cannabis sector to stimulate job creation across the entire value chain (Brown et al., 2023). For instance, studies in legalised cannabis markets in the United States have shown substantial job growth in the cultivation, processing, and retail sectors. Venter (2020) suggests that South Africa has the potential to gain advantages by legalizing the cannabis value chain. This could include substantial revenue for the government, the attraction of investors poised for profitability, lowered law enforcement expenses, augmented tax incomes, and the creation of job opportunities. Furthermore, the legalisation may contribute to the enhancement of secondary sectors like production and distribution, fostering socio-economic development such as increased housing availability. In addition, consumers stand to benefit from the availability of medical cannabis-based products. Similarly, the findings by Myran, Staykov, Cantor, Taljaard, Quach, Hawken and Tanuseputro, (2022) underscore the potential for the cannabis

industry to become a robust source of employment, particularly in rural areas where alternative economic opportunities may be limited. This is in line with findings by Junior, Gana, Adukeye and Ahuchaogu, (2023) who contend that the socio-economic impact of cannabis commercialisation extends beyond job creation, contributing to the overall economic development of the region. The literature further substantiates the notion that cannabis commercialisation can serve as an economic catalyst by examining case studies in regions with established cannabis markets (Junior et al., 2023). In Canada, for example, the legalisation of recreational cannabis in 2018 has been associated with a surge in employment opportunities, not only in cultivation and processing but also in ancillary services such as transportation, security, and marketing (Myran et al., 2022, Hall et al., 2023). Taylor, Goodman, Kavousi, Giamo, Arnold and Plakias (2023) argue that “it is critical to understand how cannabis businesses and their supply chain managers can negotiate this difficult regulatory climate in order to reap the maximum economic benefits”. These findings provide a compelling basis for exploring the potential of the cannabis industry to address local economic growth challenges in Limpopo's rural area, emphasizing the need for careful consideration of local context, regulatory frameworks, and community engagement to ensure sustainable and inclusive growth.

#### **4.3.3 Income generation**

From the conducted interviews with the different participants, the cannabis industry is filled with a vast potential of income generation. The assertion that informants may highlight the economic benefits for local farmers, particularly in terms of increased income through cannabis cultivation, aligns with existing literature documenting the positive impact of cannabis, as a cash crop in various contexts. In regions where cannabis cultivation is legal and regulated, studies have consistently shown that it can serve as a lucrative source of income for small-scale farmers. The participants said:

*“Mhhh! here we are talking about a billion dollar industry because this is something that has a variety of uses and users; cannabis is not a one product item, it has a lot of benefits as it can make multiple products from one thing, so I don't see why we are sitting in this high unemployment rate and we have this product that can help us create employment through manufacturing. Now we are looking at the extraction of oil which can make various creams such as skin care products, we are also looking at the hemp*

*textile which can produce clothes and generate income which could lead to poverty alleviation. Cannabis has a lot of multiple income streams, in addition the biggest problem is the abuse for recreational use, however the benefits are that we can be able to teach on the responsibility of smoking just like what we are doing with cigarettes. We can control how people abuse it and those who are selling to understand that they cannot just sell to anyone, there is also the issue of creation of quality bricks, wherein we can now have access to housing at low cost. Cannabis can also produce biofuel in this country; we are struggling with the issue of high fuel prices we can use this to extract production of petrol from cannabis, so there is a lot of benefits, however, majority of them are about income generation”.*

The recent study conducted by (Ritchie-Baum et al., 2023) showed that legal recreational and medical sales of cannabis in the U.S. market, topping \$24 billion in 2021, outpaced 2021 sales of Starbucks in the North American market. These findings are in contrast with those made earlier by states, which reported that cannabis sales have increased year after year, hitting USD 35 billion in 2017, up from USD 684 million in 2014 (Howard-Azzeh, 2023). The rise in sales is mainly attributed to the booming market for recreational cannabis, which has seen a consistent uptick since its legalisation. Conversely, sales of medicinal cannabis have been on the decline. Galán Ávila (2021), provide evidence that the European cannabis market is projected to expand to EUR 123 billion by 2028, surpassing the GDP of Ukraine. Furthermore, there's potential for the emergence of an industry valued between USD 500 billion to USD 1 trillion. Norman (2023) echoed comparable forecasts, indicating that Africa's legal cannabis sector might reach a value of up to \$7.1 billion by 2023, as reported by Prohibition Partners, a consultancy focused on the legal cannabis domain. This estimation considers the emergence of legalised and regulated cannabis markets in nations such as South Africa, Zimbabwe, Lesotho, Nigeria, Morocco, Malawi, Ghana, eSwatini, and Zambia. In contrast, a technical report authored by (Minnaar in 2015) suggests that recreational-use retailers expressed dissatisfaction, asserting that the regulation of cannabis had put them at a disadvantage compared to the less regulated medical marijuana industry. Literature on the economic benefits of alternative crops in agriculture supports the idea that cannabis cultivation could be a viable strategy for enhancing local farmers' financial well-being. This evidence suggests that, under appropriate regulatory frameworks, cannabis cultivation can empower local farmers

economically, potentially providing a pathway for sustainable livelihoods in Limpopo's rural setting. This conclusion underscores the potential positive economic outcomes associated with cultivating high-value crops and implies that cannabis, with its growing market demand, could similarly contribute to the financial resilience of local farmers in Limpopo and other comparable rural settings.

#### **4.3.4 Tax revenue generation**

The idea that interviews may illuminate perspectives on how the commercialisation of cannabis could contribute to tax revenue for local governments aligns with the broader literature highlighting the fiscal benefits associated with the legalisation and taxation of cannabis. Participants believe that cannabis can not only grow the country's economy, but also taxes generated from cannabis sales can contribute to local and state budgets, funding public services and infrastructure projects. This revenue can be reinvested to benefit the community; this can lead to better service delivered. In support of this a participant said:

*“When the government allow people to venture into different cannabis business, for instance, one can decide to work on producing hair and skin products while being supported by the government, another can venture in ointment where they can make lipsticks and other cosmetics, others in textile where they make clothing, the good of this will be that government will also benefit through charging these businesses tax that will be beneficial to the society”.*

Numerous case studies, particularly from regions that have legalised recreational or medical cannabis, demonstrate that taxation has become a substantial revenue stream for local governments; for instance, in the United States, states like Colorado and Washington have experienced significant increases in tax revenues following the legalisation of cannabis for recreational use (Kilmer and Pérez-Dávila, 2023, Brown et al., 2023). These tax revenues have been directed toward various public services, including education, healthcare, and public safety, showcasing the potential of cannabis commercialisation to contribute positively to local economies (Brown et al., 2023). This is in line with the study of Walker, Carpino, Lightfoot, Rossi, Tang, Mann, Saarela, Cusimano (2023) who emphasizes the importance of a well-structured regulatory framework to maximise the fiscal benefits of cannabis taxation. In 2016, legal cannabis sales in Colorado contributed to almost \$200 million in tax revenue,

and the cannabis sector in the state supported more than 17,000 full-time jobs. These studies stress the need for transparent and equitable taxation policies to ensure that revenue generated from the cannabis industry is effectively channelled into public services and community development (Walker et al., 2023, Anderson and Rees, 2023). Between July 1 and December 30, 2014, legal recreational marijuana shops in Washington State achieved sales of USD 108 million, contributing USD 27 million in taxes. This data supports the claim that marijuana legalisation can significantly boost state tax income (Anderson and Rees, 2023). These details underscore the complexity of designing taxation systems for the cannabis industry and the necessity for policymakers to carefully consider the socio-economic impact on local communities, thus, these interviews exploring entrepreneurs' perspectives on cannabis commercialisation and taxation in Limpopo could provide valuable insights for shaping effective and equitable policies that align with the experiences documented in the existing literature.

#### **4.3.5 Community development**

The cannabis industry requires a diverse set of skills, ranging from cultivation and processing to sales and marketing. Local community members can gain valuable experience and skills that are transferable to other industries. The participants from this study proffered that cannabis could alleviate poverty and grow local economies as cannabis can be grown by anyone and can be harvested more than three times a year, hence, cannabis commercialisation will yield wealth to various local and international businesses for community members. Cultivating cannabis sustainably can have positive environmental impacts, since, implementing eco-friendly practices can benefit the local environment and contribute to the overall well-being of the community. One participant added that, cannabis is a natural herb which can not only be used for recreation purposes but also for medicinal purpose and it can be used for organic medicines with no added preservatives. This means, access to medical cannabis can have health benefits for individuals in the community, offering alternative treatments for certain medical conditions and potentially reducing healthcare costs. The notion that cannabis commercialisation contributes to community development aligns with a growing body of literature that explores the positive socio-economic impacts of legalised cannabis. One participant of a similar view responded:

*“For instance, if the government can get cooperatives from various communities, to contribute to assisting with resources, such as borehole water and all other highly expected necessities. This is a start-up for the next generation. But the skills they would have levelled remains, thus, with this they will have alleviated poverty and reduced unemployment. When the business start running more people will be employed. And you know that after three months I am going to have a profit of 80 to hundred thousand. Will all these government interventions, not only will community members benefit but the government will also benefit through income tax”.*

Numerous examples from regions where cannabis has been legalised, such as certain states in the United States and Canada, highlight how revenues generated from the industry have been strategically invested in community development initiatives (Allard, Kruger, Kruger, 2023). Tax revenues from cannabis sales, for example, have been allocated to fund education, healthcare, and infrastructure projects, demonstrating the potential for the cannabis sector to act as a catalyst for positive change at the community level (Meisel et al., 2023). A study by (Venter, 2020) reported that the Agricultural Research Council (ARC) has been engaged in ongoing trials aimed at creating cannabis varieties suited to the South African climate, mainly using European strains. The potential for various opportunities in South Africa is significant, encompassing cannabis and hemp cultivation, innovative strain development, seed dispersal, logistics, transportation, and associated sectors. Prospective cultivators are showing a growing interest in growing cannabis for cannabinoid oil and the medical market. This interest brings forth opportunities for clinical trials, research, and the establishment of retail stores and dispensaries. However, it is crucial to conduct a thorough examination when assessing the potential positive effects of commercializing cannabis on community development. Challenges abound, including the need for robust regulatory frameworks to ensure responsible industry practices and ethical considerations related to the potential impact on vulnerable populations (Hall, Stjepanović, Dawson, and Leung, 2023). Similarly, existing literature and case studies also underscore the necessity of addressing potential negative social consequences, such as increased substance abuse or impaired public safety (Hall et al., 2023, Hall and Lynskey, 2020). Equally crucial is the need for comprehensive investigations into the long-term sustainability of community benefits and the equitable distribution of gains among different segments of the population. Comments by Peralta, Ke, and

Castaneto (2022) concur, that by considering these complexities, policymakers and community stakeholders can navigate the potential benefits and challenges associated with cannabis commercialisation more effectively, ensuring a balanced approach to community development (Peralt et al., 2022).

#### **4.3.6 Empowerment of local communities**

Participants from this study outlined that cannabis businesses can engage with local communities through partnerships, sponsorships, and collaborations. This involvement will help build a positive relationship between the industry and the community, fostering mutual support. Cannabis legalisation can open doors for local entrepreneurs to start their own businesses in the industry, fostering economic growth and autonomy within the community, therefore, it is important to note that the success of cannabis commercialisation in empowering local communities depends on factors such as - effective regulations, community involvement, and a commitment to social responsibility - by businesses operating in the industry. Community members, local governments, and cannabis industry stakeholders should work together to ensure that the benefits are distributed equitably. One cannabis entrepreneur said:

*“Cannabis creates employment; I am now thinking of a family in Thavhadzimbi where in it started as a family business but now it has become a community thing. They order over 4000 seeds every season, our company have 10 different bank account for them. We paid them R8,7 million divided among 10 different people, thus, all these people fully have a job”.*

The suggestion that insights from these interviews may unveil the potential for cannabis commercialisation to empower local communities, particularly through mechanisms ensuring equitable distribution of benefits, resonates with literature illustrating the transformative potential of inclusive community engagement in the cannabis industry (Klein, Rychert, and Emanuel, 2022). Successful models, such as those documented in legalised regions, stress the importance of community participation in decision-making processes, revenue distribution, and employment opportunities (Hendy, Mauri and Creary, 2023). In some jurisdictions, for instance, community benefit agreements have been established, requiring cannabis businesses to contribute a portion of their profits to community development initiatives or ensuring

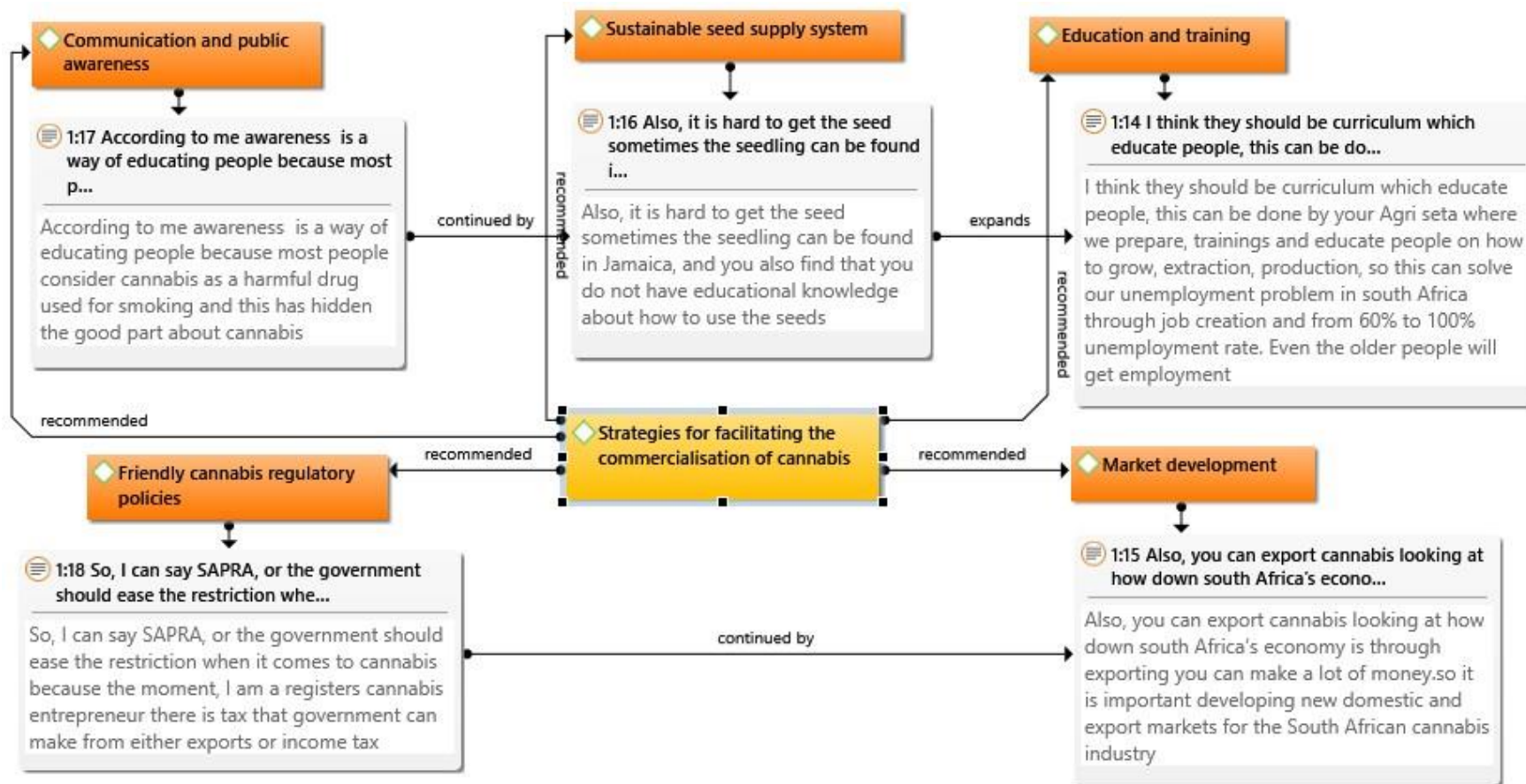
that local residents have access to job opportunities within the industry (Klein et al., 2022, Hendy et al., 2023). Such community-driven approaches are vital in fostering social cohesion and preventing the exacerbation of existing socio-economic disparities (Wen, J., Kozak, and Ying, T., 2023), however, as mentioned earlier, it is crucial to approach this perspective critically, acknowledging challenges documented in the literature surrounding community empowerment through cannabis commercialisation (Kavousi, Giamo, Arnold, Alliende, Huynh, Lea, Lucine, Tillett Miller, Webre, Yee and Champagne-Zamora, 2022). Some studies caution that the benefits of community involvement may be contingent on effective regulatory frameworks and proactive community engagement strategies. Ensuring equitable distribution of benefits requires addressing power imbalances, potential conflicts of interest, and the need for transparent governance structures. A nuanced understanding of the interplay between industry actors and local communities is essential to create sustainable models that genuinely empower and uplift the socio-economic conditions of those in the vicinity of cannabis commercialisation (Kavousi et al., 2022, Wen et al., 2023).

This study's findings resonate with existing literature which places attention on the cannabis industry's pivotal role in fostering community development across diverse regions. Notably, studies have extensively documented instances where funds generated from the cannabis sector were strategically invested in education, healthcare, and infrastructure projects. This view is supported by (Kavousi, Giamo, Arnold, Alliende, Huynh, Lea, Lucine, Tillett Miller, Webre, Yee, and Champagne-Zamora, 2022) who stated that everyone would benefit from cannabis entrepreneurship through social programs such as rural housing projects and health facilities, and there will be no inducements for black markets in this trade (Kavousi et al., 2022). This not only addresses societal needs but also enhances the overall well-being of the community by facilitating access to essential services; literature provides numerous occasions of the socio-economic impact of cannabis commercialisation on communities (Fataar, Driezen, Owusu-Bempah and Hammond, 2023). Scholarly works delve into how the legalisation and regulated commercialisation of cannabis generate employment opportunities, thereby elevating income levels within the community, hence, the supplementary income contributes to local economic development and empowerment. Similar studies by Meisel, Corva and Pachmayer (2023) deem it imperative in implementing policies to ensure an equitable distribution

of benefits from the cannabis industry, thereby guaranteeing that marginalised or disadvantaged communities also partake in the rewards of this burgeoning sector. In this context, this study's revelations about key informants discussing the potential positive impact of cannabis commercialisation on community development align seamlessly with existing literature, focusing on the necessity for a well-managed and socially responsible approach to harness the economic benefits, for the broader welfare of the community (Fataar et al., 2023). While the study and supporting literature emphasize the potential positive impacts of cannabis commercialisation on community development, it's essential to approach this perspective critically. Challenges around areas like - regulatory frameworks, ethical considerations, and potential negative social consequences - must be thoroughly explored. Additionally, the long-term sustainability and equitable distribution of benefits should be key focal points for further investigation. In conclusion, a comprehensive discussion should weigh the benefits against the challenges identified by the participants and existing literature to provide a comprehensive and accurate understanding of the potential impact of cannabis commercialisation in the rural area of Limpopo Province.

#### **4.4 Strategies, and procedures for facilitating the commercialisation of cannabis.**

The third objective of the study was to determine the strategies and procedures for facilitating the commercialisation of cannabis. ATLAS.ti network diagrams were employed to visually depict the interconnected themes and perspectives that emerged from the interviews. (See the ATLAS.ti network diagram below)



**Figure 9:** shows a visual representation of cannabis commercialisation intervention strategies using ATLAS.ti.23 network diagrams.

**Source:** researchers own construct

#### 4.4.1 Education and Training

A summary of the responses from the interviewed cannabis entrepreneurs, reveals that cannabis organisations have to perform consciousness campaigns, in order to make aware, not only their customers but the whole community as well regarding the potential benefits and risks of products made of this plant. These will include information about right dosages, potential effects on health as well as legislature issues related to cannabis use. The quotation below shows one participant's emphasis on the need for the cannabis industry operators to have education and training:

*“Everyone is in the market for cannabis; thus, cannabis should stop being criminalised. They need to fully legalise cannabis for us to also be aware of it and speak good about it. This means that educational knowledge about cannabis is also important. Our company have even written a book on the good news of cannabis to show people that cannabis is not just a drug used for smoking, there with support of the government using different form of communication in local radios, television, word of mouse and also allowing people like us to spread the goodness of cannabis and responsibility on how to use cannabis wisely. Another thing is that government can collaborate with higher institution through community engagement and train people on how to become cannabis entrepreneurs and how they can benefit from the industry of cannabis, this is what I think should be done”.*

In the United States, further research conducted by Beckman, Castañeda, Rivas and Schenker (2023), established that enrolling for a course in business management may help entrepreneurs understand the unique issues and prospects of the cannabis industry. The course may involve training on how to develop a business plan, marketing, financial management in addition to tactics for remaining up to date in a rapidly changing market. To that effect, institutions can avail courses on research of cannabis, foster scientific studies towards increasing knowledge of its medicinal existence and possible application (Beckman et al., 2023). On top of this, training on research methodologies and clinical trial could further the development of product-making based on scientific evidence. Lange, Moyers, and Croff (2023) postulated that through education, the importance of health and safety practices in cultivation, processing, and distribution of cannabis can be highlighted (Lange et al., 2023). These programs could train industrialists on the dynamic legal and regulatory environment that constantly changes to be in line with local, state, or national law requirements.

Training in licensing compliance, quality control compliance, labelling and testing are some of the areas which could be covered in the program. Scholars like Visković, Zheljzkov, Sikora, Noller, Latković, Ocamb and Koren (2023) recommend that training on the processing techniques of the products, such as oils, textile, edibles, and fuel could enhance the diversification and development of products. A recent study done in South Africa by (Viviers, 2022) made recommendations which shows that training can expose the cultivators to the latest and the most efficient cultivation practices, such as practices for sustainability, pest control and crops optimisation. Specialised courses can cover the cultivation of different strains, understanding genetics, and maximising yield; all these studies support the findings of Hendy, Mauri, and Creary (2023) who contend that by government investing in education and training to build a knowledgeable and skilled workforce within the cannabis industry, could foster innovation and enhance overall legitimacy and success of the commercialisation of cannabis (Hendy et al., 2023). Education would also help to reduce the risks from those negatively deviating from specifications of enterprises being regulated as well as incite responsible practices in the industry.

#### **4.4.2 Market development**

In the present study, the participants also singled out market development, as it might turn to be a critical strategy in commercialising cannabis in South Africa mainly because of the shifting regulatory frontiers and increasing acceptability of cannabis-based products for medicinal purposes and, in some cases, even recreational use. A cannabis entrepreneur pointed out that market development will yield positive contributions to the economy of the country, through massive revenue being generated. One participant who is a legal cannabis entrepreneur suggested the following:

*“In order to promote cannabis products entrepreneurs, can do simple initiatives such as engaging with local communities to build trust and support, participate in community activities, and support initiatives that align with cannabis business values. The other important thing is to educate the public about the benefits of cannabis and its various uses. Dispelling myths and providing accurate information can help build a positive perception”.*

The results are consistent with Taylor, Goodman, Kavousi, Giamo, Arnold, and Plakias (2023) who assert that as the industry develops, cannabis entrepreneurs need to build strong rapport with local authorities and government bodies through transparent communication in order to alleviate worries and demonstrate their commitment to responsible practices within the industry (Taylor et al., 2023). Even though government intervention is vital within the cannabis industry, it becomes essential for the cannabis entrepreneur to also be accountable for fostering the industry, through market development. Entrepreneurs should be prepared to modify the THC/CBD ratios, flavours, packaging, and marketing message to reflect a localised market's cultural and regulatory situation to meet particular needs and preferences of a given market. Similarly, Moyer and Sungu-Eryilmaz (2023) adopt this perspective that cannabis entrepreneurs must establish functional and compliance distribution pipelines to ensure products reach the consumers, unadulterated, by seeking to partner with pharmacies, dispensaries, and other registered retailers to widen the market coverage. (Raihan and Bijoy, 2023) stress sustainable and ecologically friendly practices in cultivation, production as well as distribution processes as essential. They assert that cannabis entrepreneurs should be committed to ethical and environmentally responsive business practice to win a wider range of customers. Another indispensable factor is that, if there is to be commercialisation of the industry this requires persistent adjustments so that the sector remains agile as well as adaptable to market changes, consumer preference shifts, and regulatory requirements as well (Kaur, and Kander, 2023, Raihan, and Bijoy, 2023). Another requirement is that entrepreneurs must develop a brand in South Africa in line with the values of the people and expectations; product labelling and marketing must focus on quality, safety, and transparency. Implementation of these strategies can help in successful development of the Cannabis market in South Africa so that it does not only promote sustainable growth for the entrepreneurs but adds to the positive influences in the society.

#### **4.4.3 Sustainable seed supply system**

There is a dire need for the development of a sustainable seed supply system, critical for successful commercialisation of cannabis, not only in the Limpopo Province but

nationally. One of the participants pointed out that even getting the seed can also prove to be a challenge, for instance, some seeds might be found in Jamaica and expensive to purchase, thus these are some of the challenges on seed supply. Organised and sustainable seed supply is a reliable guarantee to quality accessibility to seeds, promotes biodiversity, as well as ensures sustainability of the cannabis industry. One cannabis entrepreneur revealed the following promise made by South Africa's current President:

*“President Ramaphosa once promised that everything will be free; this includes land, fencing, permit and access to seeds. Quality seeds are imported from abroad but can generate good profit. So, the President should fulfil the promise he made to us even if everything is not free but the money, they require should be reasonable”.*

Several scholars, such as Sieracka, Zaborowicz and Frankowski (2023), advocate the necessity to create efficient channels of distribution, which will help ensure access, to the country's cannabis growers, to quality seeds. The development of projects, such as the Cannabis Development Council (CDC) should facilitate small and medium manufacturers in accessing the market by providing them with marketing and distributing support as well as training and education institutions so that they could possess the required knowledge and skills aimed at producing stable high-quality seeds. Such organization should also promote sharing of best practices in seed cultivating, storing, and distributing. This agrees with the assertion by (Raihan and Bijoy, 2023) that directed facilitation of collaboration between seed producers, cultivating entities, researchers, and government agencies would enable the development of a strong and integrated cannabis industrial networking. These initiatives are associated with encouraging environmentally sustainable practices in its seed production processes, such as - organic farming methods, water, and energy conservation. Malabadi, Kolkar, Chalannavar, Vassanthini and Mudigoudra (2023) aver that the involvement of local communities, which will include the seed production base at the local level, will generate economic opportunity to cannabis producers and help in the distributing of the benefits. Secondly, the establishment of community-based seed banks for the purposes of conservation of indigenous varieties and at the same time empowering local communities who would like to take part in the cannabis industry, as well as promoting the use of eco-friendly provision materials, would ensure

the social drawbacks of the seed system are minimised Raihan and Bijoy, 2023;(Malabadi et al., 2023). Through such strategies, South Africa can establish a sustainable seed supply system that allows for responsible and profitable commercialisation of cannabis, without compromising biodiversity at the same time benefiting local communities.

#### **4.4.4 Communication and Public Awareness**

Developing communication and public awareness strategy on cannabis entrepreneurship in Limpopo Province will require that the legal, social, and economic aspects are taken into consideration. The kind of communication that emanates from the regulatory bodies on cannabis must articulate the challenge related to the confusion of the legal framework around commercialisation of cannabis. Two participants suggested the following:

*“Government must intervene through promoting entrepreneurs who want to enter the cannabis market, this can be done through provision of awareness and communication about the importance of the cannabis market as this will eliminate the stigma within communities. Communication can be done through word of mouth, local radio stations and social media as this will be inexpensive. One can also say that just like the same way they are advocating against GBV they need to do the same with cannabis to put it everywhere including story lines of daily soapies and adverts”.*

*“Awareness and education on how we need to enter this industry. A lot of countries after they had legalised cannabis they had to go through the processes where they released people whom they had arrested because of the cannabis. They educated people on which measure they need to follow if for instance they want to open a coffee shop whereby you are trading in it”.*

Taylor, Goodman, Kavousi, Giamo, Arnold and Plakias (2023) revealed in their study that adhering to - regulations, licensing procedures, and compliance requirements - should contribute towards the building of trust; developing informative campaigns to educate the public about the benefits and risks of cannabis would all help. The cannabis organizations, together with entrepreneurs, face some common misconceptions but they must provide evidence-based information to dispute some of

these, for example, that cannabis is a drug which makes people insane; entrepreneurs, must therefore, educate the society about the benefits of commercialisation of cannabis. Findings, from Henning, Matsuda, and Stewart (2023) indicate that the messages should be tailored to different demographic groups, considering culture, age, and socio-economic factors. This should be done through the media channels (word of mouth, radio, social media) to enlighten stakeholders (Henning et al., 2023). Cannabis stakeholders can orchestrate this by meeting the public and community members during meetings at town halls and community forums, where they get straight to the point; stakeholders must also form alliances with leaders from neighbouring communities and organizations. Generally, a comprehensive communication and public awareness strategy can champion the challenges of cannabis commercialisation in South Africa and promote receptivity amongst the general masses. Some of the measures that the cannabis stakeholders recommend could be taken next, is to hold town hall meetings and community forums to investigate the issues and give feed-back to the society. They ought to also find it fit to forge partnerships with local community leaders and the local community-based organizations.

#### **4.4.5 Friendly cannabis regulatory policies**

Developing a successful strategy for cannabis commercialisation requires a comprehensive understanding of the regulatory landscape and the unique challenges and opportunities within the country. Friendly cannabis regulatory policies can play a crucial role in fostering a conducive environment for the industry; however, participants suggest that it is vital to engage with policymakers and regulatory authorities to advocate for progressive and business-friendly cannabis legislation. One cannabis entrepreneur stated that the government should decrease the registration fee for license applications, which currently stands at R25,000, (\$1330) and address unnecessary requirements to streamline the process. In addition, the government must provide free land options for cannabis entrepreneurs, particularly emerging ones, to address the land unavailability. Some policies are already in place, it is therefore, necessary to also advocate for policies that promote social equity and inclusivity within the cannabis industry. One participant articulated the following intervention required from the South African government:

*“Government must make the requirements fair for everyone, there should be access to land; government must educate those sellers in the black market who have been in the business for the longest time to bring them into the industry. Because after it was legalised, there is still a lot of debate as to whether it was legalised for personal use or recreation and so forth. The fact that there are those debates, it means that people are not clear. They must make sure that they cut the red tape and make sure that there is access for everyone. For all this to happen the government must come with favourable policies or just adopt the current master plan and ensure that it is implemented”*

This is consistent with Hendy, Mauri, and Creary (2023) who stated that the government should work towards creating a transparent and efficient licensing process for cannabis businesses and encouraging policies that support research and development within the cannabis industry (Hendy et al., 2023); thus, streamlining the application and approval process will attract more entrepreneurs to the industry. Parker, Di Mattia, Shaik, Cerón Ortega, and Whittle, (2019) who suggested that there should be funding for scientific research, innovation, and the development of new cannabis-based products. Implementation of support initiatives should aim at educating the public, policymakers, and law enforcement about the benefits and risks of cannabis; hence, increased awareness can help destigmatise the industry and promote responsible use (Parker et al., 2019). Exploring opportunities for collaboration with international organisations and countries with established cannabis industries will provide valuable insights and help, thereby aligning South Africa's policies with global best practices, in countries, such as - Belgium, Netherland, Jamaica and Canada. Kaur and Kander (2023) promote environmentally sustainable practices within the cannabis industry; they suggested that implementing eco-friendly cultivation and processing methods can enhance the industry's reputation and address concerns about environmental impact; this can be done by regularly monitoring the evolving cannabis industry, both domestically and internationally. Entrepreneurs should be prepared to adapt their strategies based on changing market trends, regulatory updates, and consumer preferences.

#### **4.5 Chapter summary**

This chapter focus on presenting key findings, visually representing the results through ATLAS.ti.23 network diagrams, and providing a detailed interpretation of the major

results. Additionally, the chapter involves a discussion of how each finding contributes to answering the research questions and a comparison of the results with findings from relevant literature, nationally and globally. The findings reveal a complex landscape shaped by a multitude of factors, each of which brings both challenges and benefits, hence, the need for intervention strategies for those involved in the cannabis industry.

## CHAPTER FIVE:

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Overall Chapters summary

The main purpose of this chapter is to summarise the key findings of the study's objectives, make inferences, offer recommendations, and draw conclusions based on these findings. It also provides a brief overview of each chapter. The study sought to explore the **Perceptions of cannabis entrepreneurs on South Africa's cannabis masterplan: a case study of the Limpopo Province, South Africa**. The objective was to address the research gap in this area by focusing on the formulated research objectives. The study aimed to address the existing research gap by focusing on the formulated research objectives mentioned below:

- a) To determine the challenges of commercialising cannabis as perceived by selected entrepreneurs.
- b) To analyse cannabis commercialisation and benefits in the Masterplan.
- c) To recommend strategies, and procedures for facilitating the commercialisation of cannabis in South Africa.

To derive meaningful recommendations and draw conclusive findings from this study, it is imperative to utilise the information gathered throughout the preceding four chapters. By incorporating the inputs obtained from these chapters, a comprehensive understanding of the subject matter can be achieved, enabling the formulation of well-informed recommendations and conclusions. These inputs serve as the foundation upon which the study's outcomes are built, ensuring that the resulting recommendations and conclusions are grounded in a thorough analysis of the data and findings presented in the earlier chapters. Thus, the utilisation of the inputs obtained from the previous four chapters is crucial for the generation of accurate and relevant recommendations and conclusions.

#### 5.1.1 Chapter One

Chapter one: The aim of this chapter was to lay out the study's orientation by providing its background, problem statement, research objectives formulation and the research's conceptual and theoretical frameworks. The research design and methods followed were provided under Figure 1.1, in conjunction with the proposed theoretical

analysis as well as all the ethical principles adhered to in this study. The theoretical objectives formulated under Section 1.3 were used to structure Chapters Two and Three.

### **5.1.2 Chapter Two**

Chapter two of the study gave an overview of the background context of cannabis' use and commercialisation. The literature details cannabis' economic impact after commercialisation; this was done through examination of studies assessing the economic benefits and challenges of cannabis commercialisation or cannabis entrepreneurship aligning them with the cannabis masterplan. The review explored different regulatory models for cannabis commercialisation globally and a comparative analysis of regulatory frameworks and their impact on the industry's development. In addition, examination of global perspectives on cannabis commercialisation, considering variations in regulations and industry development. Investigation into the social and cultural changes associated with the commercialisation of cannabis was also done in this chapter. Focus was also placed on public perceptions, attitudes, and potential stigma related to cannabis businesses, comparative analysis of different countries' approaches and experiences as well as the South African context. An identification and analysis of the challenges and barriers hindering the cannabis trading and its commercialisation, was coupled with an examination of the legal, financial, and societal challenges faced by cannabis businesses. This process assisted in the identification of gaps, limitations, and areas needing further research on the topic of cannabis commercialisation.

### **5.1.3 Chapter Three**

Chapter three provided a brief overview of the research design. The chapter details the research approach, research design, targeted population, sample, data collection techniques and tools, data analysis procedure, description of the research site, as well as measures to ensure the quality of the research process. The chapter concluded by providing a discussion on the ethical considerations that were adhered to during the study.

### **5.1.4 Chapter Four**

Chapter four presents the key findings from the study. The findings show a complicated landscape shaped by a variety of factors, each of which presents

opportunities and problems for those involved in the cannabis market. The results are visually represented using ATLAS.ti.23 network diagrams which effectively captured the participants' views on three key aspects - the challenges of commercialising cannabis; the benefits of cannabis commercialisation in the master plan, and recommended strategies and procedures for facilitating cannabis commercialisation in South Africa. The chapter offers a detailed interpretation of the major results and discuss how each finding contributes to answering the research questions. This chapter further compares the results with findings from relevant literature nationally and globally and during the process, the researcher identified similarities, contradictions and provided explanations.

## **5.2 Conclusion on the Research Objectives**

### **5.2.1 Research objective one: to determine the challenges of commercialising cannabis as perceived by participants.**

The study, in this objective aimed to determine the challenges of commercialising cannabis as perceived by participants. Through a comprehensive data analysis of participants' responses, several key conclusions emerged:

#### **5.2.2 Regulatory Ambiguity**

Participants consistently identified regulatory uncertainties as major hindrances to the commercialisation of cannabis. The lack of standardised and clear regulations at local, national, and international levels has created a challenging environment for businesses, leading to uncertainties among cannabis entrepreneurs.

#### **5.2.3 Financial Constraints**

Economic challenges, such as limited access to financial resources and limitations on cannabis-related financial support were identified by the participants. Financial uncertainty has hampered the cannabis industry's growth and development. Unregistered entrepreneurial participants stated that they do not have the money to purchase property, create the required facilities, provide tight security, or purchase seedlings.

#### **5.2.4 Stigma and Public Perception**

The social stigma associated with cannabis continues to have an impact on its commercialisation. Participants underlined the importance of education and public

awareness initiatives in changing cultural perspectives and creating a more welcoming climate for cannabis-related businesses.

### **5.2.5 Supply Chain Issues**

Major challenges were identified across the cannabis supply chain, including seed supply, production, processing, and distribution. Participants raised concerns about product uniformity, quality control, and the need for a more streamlined supply chain to increase efficiency.

### **5.2.6 Market Fragmentation**

The cannabis market is fragmented, with varied legislation and consumer preferences across countries, which presents a significant challenge; for example, most customers prefer cigars over organic cannabis tea since they are more accustomed with recreational cannabis than medicinal cannabis. Standardization and the adoption of uniform industry procedures were thought critically to solving this obstacle.

### **5.2.7 Recommendations for Research Objective One**

#### **5.2.7.1 Regulatory reforms**

To address the regulatory challenges in the cannabis business, countries should work to set clear and consistent trade regulations at all levels.

- Regulatory agencies like SAHPRA should collaborate with industry stakeholders to create standards that balance public safety and business success.
- Regulations should be regularly evaluated to reflect changing market needs and scientific advancements.

#### **5.2.7.2 Financial support and accessibility**

To alleviate financial constraints, stakeholders should:

- Advocate for financial assistance and intervention from the Department of Small Business Development. This is because some formal entrepreneurs take loans to register the cannabis business with the aim of paying when the business starts making profit.

- South African **Health Products Regulatory** Authority (SAHPRA) should reduce the excessive amounts required to get licences and operate the enterprises.
- Encourage financial institutions to develop tailored services for cannabis businesses; this can consist of assistance through sponsorships to communities.

### 5.2.7.3 Public Awareness Campaigns

To combat stigma and alter public perception:

- Governments and business associations should work together to create comprehensive public awareness campaigns that educate community members about the potential benefits of cannabis and how it can improve their livelihoods.
- Educational programs should focus on the therapeutic benefits, dispel myths, and promote careful consumption. These programs can be implemented through cooperation and partnerships with Higher Education Institutions. Governments should promote scientific studies on cannabis, encourage collaboration between academic institutions and industry participants, and create a framework for the ethical and legal exploration of cannabis-related inventions/products.
- Communities should participate in outreach initiatives to help foster a more knowledgeable and accepting society. This can be accomplished with the participation of stakeholders such as chiefs, civic, businesspeople, and community members.

In conclusion, the problems of commercialising cannabis are diverse, necessitating a collaborative effort from governments, corporations, and society at large. By resolving regulatory uncertainty, financial restraints, societal stigma, and industrial fragmentation, the cannabis industry can prosper and greatly contribute to economic growth and well-being. The recommendations made in this dissertation provide a road map for stakeholders to manage these hurdles and realise the full potential of the cannabis market.

### **5.3 Research Objective Two: To analyse Cannabis Commercialisation and Benefits in the Masterplan**

An analysis of cannabis commercialisation and its benefits in the South Africa Cannabis Masterplan has provided valuable insights into the current state and potential future developments in the cannabis industry. The following key conclusions can be drawn from the study:

#### **5.3.1 Economic Impact**

The South African economy could experience a significant boost through the commercialisation of cannabis. By engaging in the various stages of cannabis production, processing, and distribution, the nation can unlock a range of potential benefits. These encompass the creation of employment opportunities, the stimulation of economic growth, and the expansion of revenue streams, all of which can contribute to the overall enhancement of the country's economic landscape.

#### **5.3.2 Community Development Impact**

Cannabis legalisation and commercialisation can have a positive social impact, such as reducing illicit activity, improving public health outcomes, and promoting social fairness, however, careful regulation and community engagement are critical for mitigating any negative repercussions, such as substance abuse. Furthermore, the cannabis sector can open new options for South African farmers; cultivating cannabis for therapeutic and industrial uses can improve agricultural sustainability by supplying farmers with alternative crops which are in high demand.

#### **5.3.3 Global Competitiveness**

As the global cannabis market increases, South Africa has an opportunity to establish itself as a competitor. Strategic alliances, research and development, and adherence to international quality standards are critical for the country to establish itself as a dependable and high-quality cannabis provider on a global scale; for example, Canada, the Netherlands, and Belgium are among the countries most interested in trade with South African cannabis companies.

### **5.3.4 Recommendations for Research Objective Two**

Building upon the conclusions drawn from the analysis, the following recommendations are proposed to guide the successful implementation of the South Africa Cannabis Masterplan:

#### **5.3.4.1. Research and development.**

Relevant cannabis sector players should invest in research and development projects to fully explore cannabis's medical, industrial, and agricultural applications. There is a need to encourage collaboration among government institutions, research organisations, and private businesses to spur innovation and create new, value-added cannabis products.

#### **5.3.4.1 Social equity programs**

There should be an implementation of social equity measures to redress historical imbalances and ensure that the advantages of cannabis commercialisation are distributed equitably. Support efforts should be available to enable historically marginalised populations to participate in the cannabis business and reap its economic benefits.

#### **5.3.4.2 Monitoring and evaluation**

In addition, a thorough monitoring and evaluation system need to be established to track the impact of cannabis commercialisation on economic, social, and health variables. The system will regularly assess the success of rules and regulations, making necessary revisions to support the cannabis industry's long-term development.

#### **5.3.4.3 The mechanism for cannabis regulation**

Participants recommended that the government create a comprehensive regulatory framework to oversee the cannabis business. This framework should cover - licensing, quality control, marketing, and distribution – thereby ensuring that industry actors follow stringent guidelines while still encouraging innovation and competition.

In conclusion, by implementing these recommendations, South Africa can navigate the complexities of cannabis commercialisation and establish itself as a responsible and influential player in the global cannabis market, reaping the economic and social benefits outlined in the South Africa Cannabis Masterplan.

## **5.4 Research objective three: to recommend strategies, and procedures for facilitating the commercialisation of cannabis in South Africa**

Based on the findings, several conclusions can be drawn:

### **5.4.1 Regulatory Clarity**

There is a critical need for regulatory clarity to ensure a stable and predictable environment for cannabis enterprises. Streamlining regulations and resolving uncertainties will help the business thrive and attract investors. It is the government's responsibility to establish clear regulations that are consistent with key policies and Acts; additionally, the regulations should not exclude ordinary persons interested in entering the cannabis market.

### **5.4.2 Market Research**

Understanding consumer preferences, anticipating trends, and identifying niche opportunities all need extensive market research. Furthermore, educational campaigns can help dispel myths about cannabis and encourage its appropriate use.

### **5.4.3 Social Equity Measures**

To ensure that the cannabis industry advances inclusive growth, social equality measures should be introduced. These could include programs to support small businesses, encourage diversity in ownership, and rectify historical injustices associated with cannabis prohibition. The process can include preferential licensing for historically disadvantaged individuals, training programs, and community development projects. This can be accomplished by establishing cannabis organisations that represent cannabis entrepreneurs and safeguard customers from challenges, such as exorbitant cannabis' product prices.

### **5.4.4 Recommendations for Research Objective Three**

Building upon the conclusions drawn from the analysis, the following recommendations are proposed:

#### **5.4.4.1 Policy Refinement**

Based on the observed concerns and ideas from the cannabis entrepreneurs, regulators should consider fine-tuning key areas of the cannabis masterplan to better meet the demands and obstacles experienced by sector operators. There should be a development of a complete and unambiguous regulatory framework for the cannabis

industry, including licensing, production, processing, distribution, and retail. These processes should involve stakeholders in the development process to achieve inclusivity.

#### **5.4.4.2 Support Mechanisms**

Implementing targeted support mechanisms, such as educational programs, mentorship initiatives, and financial aid, can boost cannabis entrepreneurs' resilience and success, especially, those facing the unique hurdles described in this study.

#### **5.4.4.3 Communication Strategies**

Enhancing communication techniques to ensure that cannabis entrepreneurs understand the many components of the masterplan, hence, enabling better transparency and collaboration between the industry and regulatory entities.

#### **5.4.4.4 Public Awareness and Education**

Cannabis activists should help start extensive public awareness and education campaigns to enlighten people about the advantages and risks of cannabis use. These initiatives would promote responsible consumption and provide factual information to debunk cannabis myths and misconceptions. This is one of the most essential considerations in implementing cannabis commercialisation because it involves both end users and cannabis businesses.

#### **5.4.4.5 International Collaboration**

South Africa should explore opportunities for international collaboration and trade to leverage global expertise and expand market access for the country's cannabis products.

In conclusion, the effective commercialisation of cannabis in South Africa necessitates a diversified approach that solves legislative issues, improves market knowledge, considers social equality, and fosters good corporate practices. These proposals would aim to help policymakers, industry stakeholders, and the general public build a robust and sustainable cannabis business that benefits both the economy and society as a whole.

Basically, the successful commercialisation of cannabis in South Africa requires a multifaceted approach that addresses regulatory challenges, promotes market

understanding, considers social equity, and encourages responsible business practices. The recommendations provided aim to guide policymakers, industry stakeholders, and the public in creating a thriving and sustainable cannabis industry that benefits both the economy and society at large.

## **5.5 Conclusions on the research problem and contributions to the field of knowledge**

This study aimed to address the research problem of the lack of scholarly discourse on the commercialisation of cannabis. While previous research has primarily focused on the decriminalisation of cannabis for recreational use, this study sought to explore other outcomes of cannabis use, particularly the impact of the cannabis commercialisation industry on developing countries. Limited information is currently available on important issues such as income generation, cannabis sustainability, and the production of organic medicinal products. By examining these aspects, this study contributes to a more comprehensive understanding of the implications of cannabis legalisation.

The study has shown that most cannabis entrepreneurs operate on the black market, this is because of the exorbitant requirements of the regulatory bodies for one to be a legal cannabis entrepreneur; the required elements comprise of land, operating facility, security, and expensive license. This limits cannabis entrepreneurs to only selling recreational cannabis and not expanding in terms of cultivation, manufacturing, production, and exporting. The research also discovered that there are cannabis entrepreneurs who are operating legally, and these are making millions of profits working with international countries, however, these entrepreneurs had to spend a lot of money to achieve this status. Most people in the Limpopo Province use cannabis for recreational purposes, therefore, the use of cannabis for other benefits is not known by many, except a few cannabis activists and illegal entrepreneurs who had attempted to register their businesses to expand but had failed due to the strict requirements.

### **5.5.1 The study's contributions to the body of knowledge**

1. The study identified and thoroughly explored perceptions of cannabis entrepreneurs on South Africa's cannabis' Masterplan based on the gap observed in the literature.

2. The information gathered, identified the challenges faced by cannabis entrepreneurs such as - regulatory extremities, limited access to land, stigma and negative public perception, lack of access to financial resources and non-compliance with existing laws.
3. Cannabis entrepreneurship has enormous benefits. This may be due to the fact that cannabis is a plant that is used for various purposes, such as medicinal, recreational, edibles, oils and tinctures, textiles and fabrics, building materials, paper products, biofuel, nutritional products, plastics and biodegradable products.
4. The study also suggested solution with regard to the intervention strategies on how any individuals can become a legal cannabis entrepreneur.

## **5.6 Limitations of the study and future research directions**

### **5.6.1 Limitations**

The researcher identified specific limitations within this dissertation, which will be discussed in detail below.

1. The research focused solely on the Limpopo Province, so its findings may not be applicable to other provinces in South Africa, as well as the rest of Africa and other developing countries. However, cautious general implications can still be derived from the study.
2. The study used a qualitative approach, so statistical conclusions about the perspectives of cannabis entrepreneurs on South Africa's Cannabis Masterplan could not be drawn.
3. Some perceptions of entrepreneurs were inherently subjective; hence, individual interpretations of the Masterplan did vary. This made it a bit challenging to capture the full range of some perspectives, accurately.

### **5.6.2 Future research directions**

The findings of this study could be valuable for researchers seeking to comprehend the perspectives of cannabis entrepreneurs. To explore potential differences in how these entrepreneurs perceive the industry, a similar study could be conducted in other provinces of South Africa. Replicating this research in a different location may offer insights into the viewpoints of cannabis entrepreneurs regarding the commercialisation of cannabis. In the future, it is intended that a comparative study

using mixed method approach will be done with the primary goal of explaining the phenomena and to derive statistical and theoretical conclusions.

## 5.7 Conclusion

In conclusion, this study delved into the perceptions of cannabis entrepreneurs regarding South Africa's cannabis masterplan. The findings presented in this chapter provide valuable insights into the various aspects influencing the perspectives of entrepreneurs operating in the cannabis industry. The conclusion and recommendations outlined in this chapter are derived from a combination of existing literature and the findings of this study. This dissertation also revealed a solution to the research problem as well as the significance of this study. Key conclusions drawn from the study indicate that the cannabis masterplan should be implemented; participants stated that government must come up with favourable policies or just adopt the current master plan and ensure that it is implemented. This is because if the cannabis industry is restricted to only certain people, South Africa will remain with high unemployment rate, and individuals will be using cannabis for wrong reasons while also abusing it. Instead, government can turn it around and ensure that all interested South Africans tap into this billion-dollar industry. The study found that most barriers arise from complying with South African laws and regulations. Thus, it is vital that cannabis should be commercialised unrestrictedly once its significant benefits are proven, as this can greatly enhance the well-being of individuals interested in cultivating cannabis for economic purposes. The researcher also found that entrepreneurs have issues relating to the society not being informed of the potential cannabis' benefits and its opportunities for community members, therefore, it is essential for the relevant cannabis organisations to provide educational awareness to the society at large. A comprehensive understanding of cannabis entrepreneurs' perceptions is crucial for policymakers, industry stakeholders, and researchers aiming to foster a sustainable and inclusive cannabis industry in South Africa. It is evident that cannabis commercialisation can play a significant role in shaping the entrepreneurs' attitudes and approaches to the Cannabis Masterplan.

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## **ANNEXURE A: QUALITATIVE INTERVIEW GUIDE**

### **Semi-structured interview guide**

**Perceptions of cannabis entrepreneurs on South Africa's Cannabis Masterplan:  
Semi-structured interview guide.**

**Length: 20-45 minutes**

**M / F**

**Cannabis entrepreneurs**

**Age**

#### **Qualitative interview introduction**

Invite interviewee to briefly tell you about him/herself: General information about background... mostly about perspectives on issues surrounding the commercialisation of cannabis' proposed Masterplan.

#### **Verbal consent**

Would you like to participate in this interview? Please sign if you are interested.

Sign ..... / Date: .....

## Background Information

**Overview:** *Probe 1.* What are your views regarding cannabis commercialisation?

- *What drives you to be a cannabis product entrepreneur?*
- *For how long have you been a cannabis entrepreneur?*

## Challenges of commercialising cannabis

Do you know about the cannabis Master plan? What are your views about it?

What are the challenges you face as a cannabis entrepreneur?

How do you address the lingering stigma associated with cannabis in your business and consumer outreach strategies?

## Cannabis commercialisation benefits from the Masterplan

What in your views what are the benefits associated with the commercialisation of cannabis?

How does the Masterplan encourage job creation and economic growth within the cannabis sector?

## Strategies, and procedures for facilitating the commercialisation.

What licensing and regulatory procedures can be established to streamline and facilitate the commercialisation of cannabis?

Are there innovative approaches or interventions that you believe hold promise for addressing the issues associated with cannabis commercialisation? *Please elaborate.*

Are there any collaborative initiatives that have been particularly successful in addressing challenges or advancing the industry?

## Overview of the interview session

What thoughts or inquiries do you have for me? Is there anything you'd like clarification on? Is there something you'd like to share that crossed your mind during our interview?

## ANNEXURE B: RESEARCH TIMEFRAME

**Table 3: Research timeframe**

ACTIVITY	DATE																							
	2022												2023											
	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
Meeting with the supervisor																								
Drafting the research proposal																								
"Presentation of proposal, corrections, and submission"																								
Submission and corrections for Chapters 1 and 2.																								
Submission and corrections for Chapters 3																								
Formulating an interview guide																								
Research Data collection																								
Research Data analysis and Discussion of results																								
Submission of the dissertation																								
Correcting dissertation feedback.																								
Final submission																								

## ANNEXURE C: PROPOSED BUDGET

The following research budget outlines the financial plans required to accomplish the study's objectives. This investigation has been tailored to adhere to the projected budget. Table 2 presents the anticipated budget for this study.

**Table 4: Estimated research budget**

Item description	Quantity	Unit Cost (R)	Total Cost
<b>Transport</b>			<b>6000</b>
Travelling from Univen to areas in Vhembe to collect data and to give feedback (15 trips)	100 km *15 trips	1500*4	6000
<b>Meals</b>			<b>2250</b>
At data collection	15 days for 1 person	150	2250
<b>Equipment</b>			<b>3540</b>
Voice recorders	2	1000	2000
External hard drive	1	1540	1540
<b>Consumables</b>			<b>6225</b>
Proposal editing	27 pages	30	810
Marker pens	5	50	250
Writing note pad (manuscripts)	20	13.25	265
Files (A4 files)	4 collections	100	400
Language research editing	123 pages	30	3690
<b>Printing</b>			<b>40</b>

Interview guides	2pages each	20*2	40
<b>Total</b>			<b>17245</b>