FACTORS INFLUENCING GROWTH OF ENTREPRENEURSHIP IN THE BEEKEEPING SECTOR, MAKUENI COUNTY, KENYA

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DECLARATION

Declaration by candidate.

This proposal is my original work and has not been presented for a degree in any other university.

Signature ……. Date…….

Mwangi Watiri Ruth D53/CTY/PT/26197/2011.

Declaration by supervisor.

I confirm that the work in this proposal was done by the candidate under my supervision.

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TABLE OF CONTENTS

List of tables

List of figures

OPERATIONAL DEFINITION OF TERMS

Government policy	the regulations set in support of entrepreneurship and beekeeping in terms of tax, laws, and permits.
People's Culture	the customs, social behaviours of individuals, and the community towards beekeeping.
Technical support	the services provided to encourage and grow beekeepers in terms of training, incubation centres, associations, and extension services.
Market accessibility	this includes access to market information, clear distribution channels, ease of selling products through clear distribution channels.
Ease of access to Finance	availability of monetary support for beekeepers to grow their enterprises from financial institutions, Sacco, banks, and investors.
Entrepreneurship growth	advancement in entrepreneurship of agriculture in beekeeping defined by increase in profits from beekeeping, increase in the number of commercial beekeepers and honey production in Makueni County.

ABBREVIATIONS AND ACRONYMS

AGOA	African Growth and Opportunities Act.
ASDS	Agriculture sector development strategy
ASAL	Arid and Semi-Arid Lands.
CIDA	Canadian International Development Agency.
CIP	Commercial Insect Program.
IBRA	International Bee Research Association.
ICIPE	International Centre of Insect Physiology.
ICT	Information and Communication Technology
KCA	Kenya College of Accountancy
KHC	Kenya Honey Council.
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KTBH	Kenya Top Bar Hive.
MFI	Microfinance Institutions
NGO	Non-Governmental organisations
UNDP	United Nations Development Program.
SACCO	Savings and Credit Cooperative

SME	Small and Medium Enterprise
WEF	Women enterprise fund.
YEDF	Youth enterprise development fund

ABSTRACT

Entrepreneurship in agriculture is crucial to economic and social development in Kenya. According to the Kenyan Economic Survey of 2019 from the Kenya National Bureau of Statistics, agriculture contributed to 31 percent of Kenya's GDP. However, only twenty-five percent of start-ups in the sector survive for the first three years. Entrepreneurship in the beekeeping sector is limited hence the need for the research. This research investigated the factors influencing the growth of entrepreneurship in the beekeeping sector in Makueni County. Specifically, the project examined the influence of government policy, the culture of the people, the impact of technical support, market accessibility and access to finance on the growth of entrepreneurship. Schumpeter's theory explained the importance of policy, technical support, and financial support on the growth of entrepreneurship. Kirznerian theory underpins how vital policies are for the promotion of a conducive environment for entrepreneurs who are starting off or for growth of enterprises, the importance of access to markets, people's culture, and government policy to the growth of entrepreneurship. Descriptive research design was used to understand the factors affecting entrepreneurship growth in the beekeeping sector in Makueni County. Due to the large geographical area of Makueni County, data was collected from Kibwezi and Kathonzweni. The target population consisted of one hundred and ten individuals. Questionnaires helped to reach all the respondents. The data was analysed using descriptive statistics and inferential statistics by Statistical Package for Social Sciences (SPSS). Descriptive analysis examined the relationship between the growth of entrepreneurship in beekeeping in Makueni County and government policy, culture, technical support, access to market and finance. The investigation revealed, market access to be the most important for the growth of entrepreneurship, hindered by lack of information on how to access diverse markets leading to growth of enterprises. Fifty-three per cent of the respondents sold their products to neighbours and the local market. They had little motivation to expand their businesses because of the little returns. Policy supporting beekeeping in terms of training and financial credit was available but not accessible to all. Access to finance was the third factor, but collateral requirement and high-interest rates on loans proved to be the main obstacles. The culture of entrepreneurship was high since many had family support. All respondents agreed that technical support was essential for them to gain the necessary skills to run their beekeeping enterprises. The study recommends that government policy guiding the beekeeping sector need to be broader to ensure quality products, access to markets and inclusive of all stakeholders in the sector. So that all have access to the training provided and the financial support. Market information should be readily available for entrepreneurs. The government can help entrepreneurs' access external markets by creating networks that link them to consumers.

CHAPTER ONE

1.1 Background of the study

Countries have developed economically because of entrepreneurship (Wanyonyi, 2015). It creates wealth for a country, employment and provides goods and services that satisfy the needs of the society. Several factors affect the growth of entrepreneurship in the community: policy, culture, technical support, markets, and access to finance.

The policy governing entrepreneurship affects all the stages. The goal is to ensure that more people become entrepreneurial and can start and grow successful enterprises. In the event of a failure, it does not lead to dire consequences for the individual and their family. Specifically, policy needs to regulate the environment for start-ups, promote entrepreneurship education, provide supporting measures, target specific groups and provide access to financing and seed capital (Lundstrom & Stevenson, 2001). For entrepreneurship development in Kenya, policy targets training, provision of financial credit and infrastructure (Bwisa, 2011).

Entrepreneurship and culture are closely related. Research by Serrano and Linan (2014), showed the effect culture has on economic development and entrepreneurship in Latin America. The perception that promotes individualism, but social responsibility can lead to the growth of entrepreneurship. Individualism allows people to be ambitious, but they consider building their communities of high priority. The entrepreneurial culture of a society is encouraged through programs and institutions. Entrepreneurial education is essential from an early age. The entrepreneurial training in Kenya has helped shape the view of society, making it acceptable (Robb, Valerio & Parton, 2014).

Provision of technical support leads to the growth of entrepreneurship. Ester (2017) found that the support given to entrepreneurs contributed to the success of Silicon Valley. For-profit and non-profit organisations offer mentorship, market access, networking channels with other entrepreneurs and access to finance. Incubators offer all entrepreneurs the tools they need to succeed in their ventures. All these strategies protect young enterprises from collapsing. There is an entrepreneurial culture that allows individuals to pursue their passion and accept failure.

Markets provide the opportunities needed for the creation of new ventures. Inefficient firms, flawed pricing mechanisms, imperfectly distributed information characterise today's markets (Cohen, 2007). The business model canvas helps to define the market concept by providing several factors that need attention. These are customer segment, value proposition, customer's relationships, essential resources, key partnerships, revenue streams and cost structure (Hansen, Giglierano & Whalen, 2018). Marketing, therefore, affects entrepreneurship and can be analysed by looking at the access of information available to entrepreneurs, their relationships, and networks with other players in the sector, transportation, and pricing mechanisms.

Without credit facilities, entrepreneurship would not grow. Access to finance has both positive and negative effects on the growth of entrepreneurship. The ease of access to funding increases the chances of improving poor entrepreneurial ventures in the market (Evans, 2015). Access to finance includes the availability of the necessary amount of capital together with optimal terms and conditions (Vega, Manuela, Pietro, Filippo, Alfalla & Rafaela 2017).

Sources of finance could be microfinance, banks, investors, and self-sponsored capital. To access credit, entrepreneurs need to be financially literate. The environmental conditions, for example, the political climate, need to be peaceful. Sadly, many start-ups fail to qualify for credit when compared to seasoned entrepreneurs. If they are eligible, the majority are given less than they need, with unfriendly conditions making it challenging to grow (Newman, Schwarz, & Ahlstrom, 2017). Older, more significant foreign-owned ventures tend to access financial support more readily compared to others. The primary source of finance for many entrepreneurs is informal. From money lenders, family, and friends (Thorsten & Asli, 2006).

1.1.1 Growth of entrepreneurship in Kenya

Entrepreneurship is considered the key to development globally. It leads to the creation of employment, improvement in living standards and economic growth for a country. In Africa, entrepreneurship is very low, and unemployment is high, especially among the youth. Africa has a lot of wealth in term of natural resources, but entrepreneurs have not successfully exploited it. Entrepreneurship in Africa is driven mainly by lack of employment. African countries have put in the effort to grow their economies. Many have strategies on the creation of jobs, increase of foreign investors and reduction of regulatory requirements. These strategies have led to positive economic growth. Entrepreneurship in African countries still has to be addressed (Felix, 2015).

The African development bank in 2017, noted that Kenya was ranked as the second-largest economy in the eastern Africa region after Ethiopia. Eased political tension and improved business confidence attributed to economic development. The business sector, specifically the SMEs, are concentrated in a few industries, are informal and report low productivity.

Nevertheless, these account for eighty-three per cent of employment in the private sector. In agriculture, concentration is mainly on small subsistence farming food crops and nomadic livestock rearing. The challenges experienced are lack of infrastructure, perceived corruption, weak regulatory environment, and shortages of a trained workforce. There is great potential that exists in Kenya for entrepreneurial growth, especially in the agriculture sector.

Kenya has tried to improve the entrepreneurial environment. It was among the first African countries to introduce entrepreneurship into the curriculum (Sambo, 2016). Over the years, it has put in place programs and policies to encourage entrepreneurship. The ease of starting and running a business has significantly improved through the reduction of licences required and the duration of time it takes. Different programs allow entrepreneurs to access credit like youth enterprise development fund and women enterprise fund. The universities have also initiated incubation programs to help start-ups (Wachira, 2017).

1.1.2 Growth of entrepreneurship in beekeeping globally.

Globally, beekeeping is popular; the exportation of natural honey made over two billion dollars in 2017. The leading producer of natural honey is China, which contributed eleven-point three per cent of the total natural honey exported worldwide. The second-largest producer of natural honey is New Zealand eleven-point two per cent (Workman, 2018). Generally, there has been a steady increase in honey production from 2010 to 2017. Cumulatively in 2017 over one point eight million tonnes of natural honey were produced. Asia produced over nine hundred thousand tonnes. It was followed by Europe, which produced about three hundred and eighty-six thousand tonnes. America followed closely, contributing around three hundred and thirty-three thousand tonnes of natural honey. Africa

produced the least, about one hundred and ninety-eight thousand tonnes of natural honey (Food and Agricultural Organization, 2018).

In Africa, the leading producer in 2017 was Ethiopia, which produced fifty thousand tonnes of natural honey. Tanzania was second with thirty thousand three hundred and ninety-three tonnes of honey then Angola at twenty-three thousand four hundred and thirty-nine. Kenya was the fourth, and it produced eighteen thousand and ninety tonnes of natural honey. In eastern Africa, the leading producer of honey is Tanzania (Department of Agriculture, 2019). Over the years from 2010, natural honey production had fluctuated the peak was in 2015 when overall the production was one hundred and thirty-four thousand nine hundred and ninety-five. Tanzania is the only country over the years that has maintained a steady production rate (Food and Agricultural Organization, 2018).

1.1.3 Growth of entrepreneurship in beekeeping in Kenya.

Eastern Africa faces several challenges that hinder the development of the beekeeping sector. For example, poor infrastructure, use of traditional beekeeping methods, lack of knowledge on the part of the farmer, difficulty in access to market, lack of policies to guide the sector. One major problem is the high cost of modern beekeeping inputs since those who are likely to venture into the activity are the marginalised (Serda, Zewudu, Dereje, & Aman, 2015).

In Kenya, honey mainly comes from Baringo, Kitui, Tharaka Nithi, West Pokot, Taita Taveta and Makueni Counties. Kenya has a long history when it comes to beekeeping. Honey was used by many cultures in ceremonies and as a preservative during drought. In the 1950s, honey collection centres were established in the semi-arid regions by the colonial government. The government established the national beekeeping station at Lenana,

development of the KTBH and the addition of beekeeping within the ministry of agriculture. Beekeeping was divided into two systems the extensive system; this uses the traditional log hives mostly in forests. The other form of beekeeping is the intensive system, which uses modern hives such as Langstroth, box hive, and KTBH (Carroll & Kinsella, 2013).

The extensive system is still widely used in Kenya, as of 2014, the population of log hives was over one million one hundred. Followed by the KTBH at two hundred and one thousand two hundred and fifty-seven, then the Langstroth which had a population of one hundred and sixteen thousand five hundred and eighty-five (Kenya national bureau of statistics, 2015). The Ministry of Agriculture estimates the potential of honey production and beeswax to be at one hundred thousand metric tons and ten thousand tons per annum, respectively (Department of Agriculture, 2019).

The low production is attributed to lack of training for farmers not only on beekeeping practices but also on record keeping. Insufficient research on existing beekeeping technologies, limited access to appropriate beekeeping equipment also poses a problem for farmers (Mulupi, 2010). Public awareness of beekeeping as a source of income is also limited compared to other agricultural practices like dairy farming; this also contributes to the poor performance of beekeeping in Kenya since it gets fewer funds from the government. Agriculture has proved most effective in fighting poverty and hunger than any other sector (Food and Agricultural Organization, 2015).

Beekeeping in Kenya has potential; through entrepreneurship, the sector can grow; this can improve the lives of many in ASAL areas and grow the economy. Isenberg (2011) came up with six elements that make up a conducive entrepreneurial environment; these are a

conducive culture, enabling policies, support, availability of finance, quality of human capital, venture friendly markets for products and a range of institutional and infrastructure support. Makueni County is one of the leading producers of honey and other hive products (Department of Agriculture, 2019). It is essential to understand the entrepreneurial environment beekeepers are in, to know what needs to be improved, corrected, or removed so that the sector can grow.

1.1.4 Growth of entrepreneurship of beekeeping in Makueni County

Makueni County occupies about eight thousand kilometres. Six sub-counties make it up, Mbooni, Kibwezi east, Kibwezi west, Makueni, Kaiti, and Kilome. It has a population of around one million two thousand nine hundred and seventy-nine as of 2018 (Department of Agriculture, 2019). The youth, those between the ages of eighteen to thirty-five, take up twenty-four percent of the population. Geographically it lies in the arid and semi-arid zones of the Eastern region of the country. It experiences two rainy seasons the long rains are in March and April, the short rains in November and December. Mainly it is divided into two the north; these are the high lying areas.

The temperatures range between twenty to twenty-four degrees Celsius and receive about eight hundred to one thousand two hundred millimetres of rainfall. In the South, the area is mainly dry, with high temperatures of up to thirty-five degrees Celsius. The region receives two hundred and fifty to four hundred millimetres of rain annually, which barely support agriculture (Makueni integrated development plan, 2018).

Beekeeping in Makueni County is an income generating activity. The study focused on Kibwezi and Kathonzweni, regions with active beekeepers registered by the county government. In the early nineties there were groups registered with over two thousand

beekeepers but since then this has reduced to about eight hundred and fifty practising beekeepers. The annual honey has reduced from five tons in the nineties to one ton (Kathila,2017). This drop is mainly attributed to production inefficiencies, unskilled labour, poor access to finances and extension services (Muriuki, 2016). The growth of entrepreneurship has been low, yet the conditions are adequate there is a honey extraction site in Kibwezi, to encourage modern beekeeping. Beekeeping is part of the history and culture of the area.

1.2 Statement of the problem

Beekeeping as a sub-sector of agriculture, does not have a central policy attention in Kenya when compared to other sectors such as dairy, tea, coffee and horticulture even though vast areas of the country are suitable for beekeeping. Kenya has the potential of producing a hundred thousand metric tonnes of honey yearly. However, it produces only twenty-five thousand metric tons (Government of Kenya, 2010). If the country can increase production, it can satisfy the local demand of, thirty-eight metric tons of honey, and export (Government of Kenya, 2019). Increased production could significantly improve farmers income and livelihood.

While there is so much potential in the sector, there are still huge untapped entrepreneurship opportunities. A key issue is to understand why there has been slow growth in the entrepreneurship angle of beekeeping. For beekeeping to develop in Kenya, the entrepreneurship side of it has to develop. However, upcoming generations are abandoning the beekeeping sector, and the uptake of modern technology has been very low (Chemwok, 2016).

Research conducted in beekeeping has focused on technology absorption and support from non-governmental organisations (Wambua, 2015). The significant difference between the potential of the country and the actual honey production is an indicator of a problem. Production of honey in Makueni has dropped over the years in the nineties it was five tonnes to one ton (Kathila,2017). Studies on entrepreneurship in beekeeping is scarce. Strategies have been implemented to improve beekeeping over the years for example the county government of Makueni aims to develop a honey processing plants in Kibwezi and Kathonzweni (Department of Finance, 2018). Modern technology is available to increase production and quality. Regardless of all the progress less people are becoming beekeepers and production of honey is low. Hence the study focused on five factors that influence entrepreneurship: government policies, the culture of people, technical support, access to markets and finance. To understand how they affects growth of entrepreneurship in beekeeping.

Therefore, there is value to look at different aspects that may affect the decisions of people to engage in bee keeping or improve their current bee keeping enterprises. Development of entrepreneurship in agriculture is possible by improving the social, political, economic, and cultural factors that can hinder growth. Secondly, the personal attributes and capabilities of individual farmers need to be developed (Olatomide & Olowa, 2015). All the factors that drive entrepreneurship have to progressively improve over time, driven by government policies as well as the private sector. Therefore, this study looks at how these five drivers of entrepreneurship growth affect beekeepers in Makueni County.

1.3 Research objectives

The main objective of this study was to investigate the factors influencing the growth of entrepreneurship in the beekeeping sector in Makueni County.

1.3.1 Specific objectives

i. To assess the influence of government policies in the growth of entrepreneurship within the beekeeping sector in Kenya.

ii. To establish the effect of people's culture on the growth of entrepreneurship in beekeeping in Makueni county, Kenya.

iii. To examine the effect of the technical support available for the growth of entrepreneurship in beekeeping in Makueni County, Kenya.

iv. To determine the influence of market accessibility in the growth of entrepreneurship in beekeeping in Makueni County, Kenya.

v. To establish the ease of access and source of financial backup in the growth of entrepreneurship in beekeeping in Makueni County, Kenya.

1.4 Research questions

i. How do government policies influence the growth of entrepreneurship in the beekeeping sector in Makueni County, Kenya?

ii. How does the culture of people affect the growth of entrepreneurship in beekeeping the beekeeping sector in Makueni County, Kenya?

iii. How does the availability of technical support affect the growth of entrepreneurship in the beekeeping sector in Makueni County, Kenya?

iv. How does the ease of market accessibility affect the growth of entrepreneurship in beekeeping in Makueni County, Kenya?

v. How does ease of access to finance affect the growth of entrepreneurship in beekeeping in Makueni County, Kenya?

1.5 Significance of the Study

The study was essential to those interested in entrepreneurship in beekeeping as a career. Those interested can identify the challenges in the sector and the opportunities available so as to improve beekeeping. By extension, this can lead to job creation and economic development. It can lead to the uptake of commercial beekeeping by more young people which can reduce crime and encourage conservation of the environment.

The findings of the study are applicable in any semi-arid region in Kenya and could assist those in decision making positions in the private or public sector to formulate strategies that will grow entrepreneurship in beekeeping. They would be able to understand the challenges involved in market accessibility, availability of finances, and policies that inhibit or encourage growth. The research contributed to academia by increasing the knowledge of entrepreneurship in beekeeping in Makueni County. It also provided a platform for future researchers in the field of entrepreneurship and beekeeping in Kenya.

1.6 scope of the study

Makueni County, a leading honey producer in Kenya, with five thousand one hundred farmers involved in beekeeping spread out in all the wards. The study focused on beekeepers registered by the county, located in Kibwezi and Kathonzweni. The study covered only five factors influencing growth of entrepreneurship: government policies, the culture of the people, technical support, market accessibility and ease of access of finances.

1.7 Limitations of the study

The project focused only on commercial beekeepers registered with Makueni County. The language barrier was a significant limitation for the study. Local research assistants who interpreted the questionnaire addressed the challenge. The letter from the school assuring the participants that the information is for research purposes helped to convince the respondents who were reluctant to talk.

1.8 Organisation of the study

The project divided into five sections includes chapter one that had the introduction on beekeeping and entrepreneurship. It also had the problem statement, the objective and research questions, the project's significance to different groups, and scope. Chapter two contained literature review, the review of entrepreneurial theories, and conceptual framework. The factors under consideration were policy, culture, access to markets, access to financing, technical support, and growth of the beekeeping sector through entrepreneurship. The conceptual framework showed how the independent variables (culture, access to finance, market access, technical support, and policies) affect the dependent variable (growth of entrepreneurship in beekeeping).

Chapter three included the methodology, how data was collected and analysed. It comprised of the research design, target population, sampling, research instruments, validity and reliability, data collection procedures, data analysis techniques, and research questionnaire. Chapter four presented the research finding. The data was coded and analysed based on the objectives of the study. It comprised of the analysis of response rate, the descriptive statistics and regression analysis. Chapter five comprised of the summary, conclusion, and recommendation of the study. The results of the data were discussed in detail, providing a base for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two comprises of a section on the theoretical review, followed by the empirical review of each of the objectives, a summary of the literature reviewed in table format and concluded with the conceptual framework.

2.2 Theoretical review

2.2.1 Schumpeterian theory

The Schumpeterian theory helps us to understand how entrepreneurship growth leads to economic development in a society and the importance of access to finance by entrepreneurs. Schumpeter (1934), together with Weber (1930), shows that entrepreneurial attitude emerges from the social structure (Çelikkol, *et al*. 2019). The entrepreneur, according to Schumpeter (1926), is a leader with inner will power to overcome environmental and social barriers to innovate with profit creation as the goal (Backhaus, 2003). Innovation emerges either from the creation or improvement of products for the market, a better process of manufacturing, a new market, or a new industry (Cherukara & Manalel, 2011).

Schumpeter (1934) stipulated that entrepreneurship comes to an end when a new innovation is adopted, and an equilibrium is attained. Entrepreneurship is what drives economies, but this is dependent on the environment. Entrepreneurial knowledge, government regulations such as taxes, tariffs, policies, and cost of innovation affect the uptake of new technology

(Backhaus, 2003). The main goal of an entrepreneur is to make a profit from their innovation. Credit facilities are required to exploit the innovations (Evans, 2016). Financial institutions provide the needed capital to ensure the innovations reach the market. A good policy should regulate financial institutions in terms of taxes to encourage and facilitate the introduction of entrepreneurship (Miguel & Maria, 2014). Aghion and Fester (2017), discussed growth policy design and the Schumpeter growth theory. Growth relies on innovation, which results from the development of skills, the search for new markets, research, and development. Schumpeter (1934) showed innovation needs to diffuse into the society to contribute to the growth of the economy. Therefore, in many cases, the markets determine the level of innovation and adoption to new ways of doing things.

Galindo *et.al* (2010), conducted a study on entrepreneurship, income distribution and economic growth. They used the theory of Schumpeter to show the effect of entrepreneurship on economic growth and how it is affected by income distribution. Profit is the primary determinate of pursuing innovation for an entrepreneur. The social environment also plays a significant role. The reaction of the society to the innovation contributes to the success of the business. Schumpeter (1911) showed that cultural, legal, and institutional factors in the environment could hinder entrepreneurship. Innovation reduces income inequality which hinders social conflict since there is creation of jobs, which promotes an entrepreneurial culture.

Schumpeter's theory emphasises the need for a good policy that promotes entrepreneurship protecting the old technology and making room for innovation. The provision of financial support for entrepreneurs has been brought out together with the effect that culture has on entrepreneurship growth. Another factor is technical support, required for innovations and

development of specialised skills. Schumpeter's theory is useful in this study because it links some of the variables that is policy, technical support, and access to finance to the growth of entrepreneurship.

2.2.2 Kirzner theory of entrepreneurship

Being alert to opportunities emerging from market disequilibrium is a unique quality, Kirzner (1973), highlighted that entrepreneurs possess. The opportunities are perceived and exploited by the entrepreneur to make a profit. The alert entrepreneur does not have vast knowledge about a product but takes advantage of the available information on the product and sees an opportunity. These are not clear to all; it could be the price difference of a commodity in one area compared to another (Harper, 2003). The opportunity leads to innovation as defined by Schumpeter (1934). Entrepreneurs exploit the available opportunities to make a profit.

Geloso (2015), conducted a study on Deirdre McCloskey kirznerian growth and the role of social networks. The entrepreneurial success of the western world led to a change in the perception of people about markets, ideas, entrepreneurs, and innovation. Culture can affect the ability of entrepreneurs in society to be alert, what they notice and how they exploit these opportunities. Culture and knowledge about the market process are the primary sources of information that influence the entrepreneur's target. Large social networks contribute significantly to entrepreneurial alertness by providing information quickly and cheaply. The social networks help the entrepreneur focus on what is acceptable in society and will generate profit.

Bula (2012) conducted a study on entrepreneurship theories, how they apply to developing countries, specifically Kenya's entrepreneurship culture and practices. The kirznerian

entrepreneur uses the changes that occur in the market. These changes are brought about by different tastes or new products. These create a disequilibrium, providing opportunities to exploit. The entrepreneur takes advantage of the talent around him and sources of capital to create an enterprise that satisfies a need in the market. The need for market information is evident from this. If it is available, those individuals who are alert can make use of the data to create enterprises. Nevertheless, for this to happen, policies that exist need to incite that alertness within potential entrepreneurs. The environment needs to be conducive, failure to which the entrepreneurs in society will be unable to notice and take advantage of gaps in the market (Kirzner, 2009).

This theory helps us to understand the importance of markets being accessible to the growth of entrepreneurship. Availability of market information and social networks can help entrepreneurs identify profit-making opportunities. Taking note of the culture in society, they can exploit those opportunities that will be acceptable and lead to successful enterprises. It also helps us to understand the importance of policies that promote a conducive environment for entrepreneurs who are starting off or for the growth of enterprises. The kirznerian theory is applied because it underpins how essential access to markets, culture, and policy are to the growth of entrepreneurship.

2.3 Empirical review

2.3.1. Effect of government policy on growth of entrepreneurship

Policy refers to the regulations set by the government to control and develop entrepreneurship. Through simplified registration requirements, tax benefits, training and financial support, these organisations promote the growth of entrepreneurship (Robb, *et al*.

2014). Through entrepreneurship, different sectors can significantly grow. A policy needs to be specific to entrepreneurs for it to have a positive effect.

Research targeting entrepreneurial development has focused on policy and their influence on the development of entrepreneurship. Musambanyi (2015), conducted a study in Kitale and Eldoret to identify the climate for entrepreneurship and how it affects entrepreneurship development. Using an exploratory, descriptive research design, they showed that policies try to increase entrepreneurial activities by reforming the regulatory environment this was through the reduction of the number of permits and licences required to start a business. Financial support through loans, tax incentives and subsidies were provided. Skill development was addressed by increasing the number of resources dedicated to business education to create a positive attitude and improve the entrepreneurial skills in the public. How effective the policies are, has not been extensively researched on.

Sambo (2016), conducted a study on factors affecting youth entrepreneurship in Kibera district in Kenya. Using quantitative descriptive design, he analysed the effect of policy and access to credit on entrepreneurship growth. One policy highlighted was the National Youth Policy sessional paper number 3. The policy aims to reduce unemployment among the youth. The policy ensures that all major players within the environment, private, public, and civil society, have opportunities to develop the youth within the country. In turn, the youth are on a fair playing field with older, more seasoned entrepreneurs. The main issue was the lack of information among the youth about the options and opportunities available to them (KIPPRA, 2002).

Lundstrom and Stevenson (2001), conducted an explorative study to understand the patterns and trends in entrepreneurship and SME policies and practices in ten European and

non-European economies. The research showed how difficult it is to separate SME policies and entrepreneurship policies. The main goal for both policies is the creation of employment, development, innovation, and wealth creation. The policies are formulated depending on where growth comes from, factors that lead to an increase and the country's economic structure. The entrepreneurial policies target specific groups, women scientific researchers, university graduates and inventors. Some entrepreneurial policies emerge from SME policies with a focus on starting new firms reducing entry and exit barriers. Others focus on entrepreneurship education and the promotion of an entrepreneurial culture. They also ensure that there are support services such as seed capital and develop networking activities. An effective policy will provide a constant supply of entrepreneurs and a conducive environment for the success of start-ups and growing enterprises. On the other hand, SME development focuses more on the enterprise, whether it is entrepreneurial or not. An entrepreneurial policy needs to have three pillars motivation, skills, and opportunity (Musambanyi, 2015).

Global entrepreneurship program (2011), explained the three pillars of a policy. The motivation factor ignites an entrepreneurial desire; willingness to bear risk, be independent, and excel. For the skill development in entrepreneurship, policies need to build on technical and business capabilities to start and manage a business. Entrepreneurship needs to be in the curriculum from an early stage, like primary level. The opportunity pillar provides active entrepreneurs with an environment they can succeed in on their own. Incubation centres, financial services, reduction of barriers that prevent entry, and growth are necessary for entrepreneurial space. Such policies reduce necessity entrepreneurs, common in Kenya.

The situation in Kenya is wanting. Waruguru (2018), conducted an explorative study on whether the youth, women and Uwezo promote the growth of entrepreneurship. The research revealed that the policies do not have all the three components required for entrepreneurial success. The opportunity pillar was satisfied; financial and advisory services are available for individuals. The motivation and skill factor are shallow. The result is necessity-based entrepreneurship prevalent in Kenya once formal employment is made available, the ventures collapse. The two factors address the culture and technical capabilities in society when it comes to entrepreneurship. The study showed how all these are connected and need to be addressed together for entrepreneurship development.

Government policy within agriculture has motivated entrepreneurs to venture into the sector. The livestock policy aims to address different challenges, population size, trends, and distribution. In beekeeping, this is important, and it allows farmers to know when and where they can set up apiaries for high-quality production of honey. Research conducted has clearly shown the areas with high production of honey. Also, the species and behaviours of bees are well documented (Carroll, *et al*. 2013).

2.3.2 Effect of people's culture on the growth of entrepreneurship

Culture refers to the beliefs passed on from generation to generation. These affect the behaviour and choices of individuals in a community. It has a significant impact on the growth of entrepreneurship. It can affect the occupational decisions of members of a community and the roles played by women and men. The culture in a community can influence the interactions between stakeholders and the adoption of new technology (Brush, 2014). One major hindrance to entrepreneurship in African countries is culture (Robb, *et*

al. 2014). Education, formal and informal play a considerable role in the development of an entrepreneurship culture in a community.

The lack of entrepreneurial culture deters individuals from being innovative. Sousa and Maria (2014), based in Portugal, conducted an exploratory and descriptive study investigating entrepreneurial skill development. The study found that for entrepreneurs to innovate, they need to have cognitive, social, relational, technical and management skills. The skills for business can be acquired informally through apprenticeship or formally. All this is through training and learning from an early age. Those responsible for spearheading such education in society are the government, schools, and private companies.

Robb, *et al*. (2014), conducted a case study on Ghana, Mozambique, and Kenya and the effect of entrepreneurial education and training. The study noted the potential in Kenya for entrepreneurship since the Jua Kali sector employs eighty-six percent of the working population. The entrepreneurial culture in Kenya is necessity based. Education contributes significantly because the entrepreneurial training program is broad and repetitive. The background of the recipients is neglected, for example, education, age, experience, and focus. They found that education tailored correctly, introduced at an early age can change the entrepreneurship culture.

Entrepreneurship in beekeeping can be affected by culture. In most African communities, women did not participate in beekeeping. The common reasons were lack of skills, culture prohibiting the climbing of trees, fear of falling from trees, and fear of bee stings (Dike & Onwuka, 2016). Many view beekeeping negatively as being a dangerous, masculine, and unprofitable venture (Mburu, 2015). A negative perception reduces the number of entrepreneurs willing to venture into the sector. Education can help in removing any culture

that hinders the growth of entrepreneurship (Brush, 2014). With proper education on beekeeping and the possible financial and health benefits, the sector can improve entrepreneurially.

2.3.3. Effect of technical Support on the growth of entrepreneurship

Technical support, from the public or private sector, is important for entrepreneurial growth. It provides the entrepreneur with the skills they lack. It can be through training or extension services. The government and learning institutions can provide platforms for support (Boutillier, *et al*. 2016). Incubation centres, improved technology, and constant follow up can build confidence in potential entrepreneurs.

Wachira (2017), surveyed entrepreneurship growth of university-based incubators. He used a survey research design to understand how important incubators are for entrepreneurs and institutions. Incubators contribute positively to entrepreneurship growth. It ensures that entrepreneurial ventures considered are successful. Both private and public universities have started these programs, Chandaria business innovation and incubation centre at Kenyatta University, C4D lab centre at Nairobi University, @ business Africa at Strathmore University, Business/technology incubation unit at the Technical University of Kenya and KCA business incubator at Kenya College of Accountancy University. Entrepreneurs who participate undergo an interview based on their idea, whether it is marketable, profitable, innovative, and beneficial to society. Majority of the incubation centres offer ICT based services. The participants remain in the institution for about two years to learn, and their products are commercialised. The research did not clearly show the success rate of incubatees and life after the incubation period.

Wachira (2016), conducted a research study on the role of social networks in university-based business incubators in promoting entrepreneurship growth in Kenya. Using a survey research design, a positive relationship between social networks established in incubation centres, and entrepreneurship growth exists. One aim of the incubators is to link the entrepreneurs with networks with other entrepreneurs within the same and different facilities and with external mentors. The incubators provide entrepreneurs with clout and business opportunities. They were able to secure funding and new business contacts quickly because of their affiliations. The research did not explain the practical part played by the incubator in getting capital for the entrepreneurs.

Agriculture is the backbone of many African countries. Entrepreneurship ensures sustainable growth and development, affecting many marginalised communities in society. World Bank (2014), compiled a report on agricultural research and development strategies. It is vital to strengthen the link between technology development and other actors in agriculture. In the past focus has been on building the capabilities of farmer associations, improving farming practices through innovation, and expansion of extension services so that farmers can access new technology. It will be successful if the new technology is region-specific. The government, together with the private sector ensure support reaches the grassroots.

In beekeeping, the government and private organisations have provided technical support. The creation of KTBH significantly improved beekeeping. Mbae (2010), conducted descriptive survey research in Kajiado and Mwingi to show the impact of ALLPRO project in developing beekeeping. The primary purpose of the project was to train farmers on the modern ways of beekeeping. Nevertheless, there was low stakeholder involvement, poor

communication with beneficiaries. Technical support in the beekeeping sector is inadequate. As a result, beekeeping growth is affected. Other factors that prevent growth are culture and finance. Positive growth will be possible through training of modern beekeeping practices within counties, availability of quality control services, market, and honey extraction services.

2.3.4. Effect of access to markets on the growth of entrepreneurship

Marketing involves all activity that leads to the sale of products and access to new avenues of sale (Boutillier, 2016). For enterprises that are starting marketing can be a real challenge. The cost of research and promotion are high, and many organisations opt to develop the technical side of the business.

Lam and Harker (2015), conducted an eleven-year longitudinal study and context-rich interpretive approach on entrepreneurship and marketing in China. The study found that marketing and entrepreneurship are inseparable from the conception stage to the decline stage. Many entrepreneurs were active in creating, building and maintain relationships before starting their businesses. The entrepreneurs were alert to entrepreneurial opportunities from their relationships. These same relationships promised to be future customers and information sources. During the start-up, stage entrepreneurs aimed to maintain their current customer and acquire new market. Their main goal is to grow their ventures, and this requires an expansion of the customer base. The trust between customers and the entrepreneurs grows over time increasing sales. Branding of products also ensured an increase in customers and set the products apart in the market. Participation in international trade fairs and advertisement expenditure opened up new markets. The businesses at the decline stage blamed this on the poor product quality, competition, and

global economic downturn, which affected the purchasing power of customers. Many of the entrepreneurs used their social connection to make marketing decisions.

Cor (2011), shows how the concept of marketing has changed over the years. Markets have matured with customers becoming more specific about their wants. Three elements are essential in today's market; it has to be customer-specific using the market mix. Include an integrated approach combining the supply, marketing, and the organisation and profitable. Relationships are built and maintained based on customer preferences. The use of technology and the internet has shaped companies in ensuring not only excellent products but also keeping images attractive. Marketing has evolved from a transaction to a customer and market outlook.

Olatomide and Olowa (2015), analysed the factors affecting agribusiness development in Nigeria using descriptive analysis. Marketing was the fifth most effective factor in hindering growth. One reason was that individuals in developing countries do not have autonomy when it comes to the market decision (Kofi, 2002). Information about products and potential market forms part of the marketing factor and is important to instil confidence in pursuing entrepreneurship. The sector needs to be popular; advertising through social media can increase knowledge on the potential of an industry. The entrepreneur needs to be able to engage the market without intermediaries. Access and information about the local and international markets need to be available and easily accessible for the growth of entrepreneurship in a sector.

Without a reasonable market understanding, entrepreneurship growth in beekeeping will stall. Training is an integral part of marketing. Distribution channels, diaspora markets, entrepreneurial networks all these contribute to sales and improvement of products. In

beekeeping, the products are in high demand locally and internationally. Information on how to access these markets is a challenge for many due to poor networks within the sector.

2.3.5. Effect of access to finances on the growth of entrepreneurship

Finances are needed to exploit opportunities in the market. Lack of access to funding is one hindrance to the growth of enterprises. Financial institutions tend to be strict on lending to entrepreneurs. They have high-interest rates, and their terms for securing a loan are beyond the reach of many (Lederman, *et al*. 2013). The sources of finance can be banks, microfinance institutions, family, savings, and grants.

Besnik (2012), through review of the literature and quantitative econometric modelling, looked into the investment and finance in small firms in Kosovo, showing many factors come to play. Small firms tend to have lower external financing to large firms. Entrepreneurs, when starting their ventures, prefer internal funding due to the reduced risk. Profits are ploughed back into the business but sadly this limits development. Credit supply is affected by the environment, for example, corruption and High-interest rates. The success of skilled entrepreneurs would be difficult without access to infrastructure and financial resources (Robb, *et al*. 2014). Banks place such interest to protect themselves in case of failure of the business or absconding of payment. Age and education also contribute to access to external financing. The older and more educated an entrepreneur, the higher the chances of external funding.

Oyoo (2016), using a cross-sectional survey research design showed the impact of capital accessibility and growth of SMEs in Migori County. Collateral requirements are a barrier to access to credit, the nature of the business, capital structure, cost associated with the source of finance, and growth of the enterprise. Entrepreneurs are labelled as risky

borrowers hence require more collateral and attract closer scrutiny from lenders. Many beekeepers have no access to credit because they lack insurance or the constant flow of income (Chemwok, 2016). Being denied financial assistance limits entrepreneurial beekeeping, many who pursue it look for other sources of income and have limited education (Mbae, 2010). Lack of financial literacy, managerial skills, marketing skills, and absorptive technology capabilities hinders entrepreneurship.

Beekeeping in Kenya is gaining momentum, awareness of the development opportunities, and the need for more players in the sector is clear. Opportunities in the whole value chain of beekeeping are many, natural honey in the market can fetch up to one thousand Kenyan shillings per kilo (Maundu, 2018). New technology within the beekeeping sector has improved the process of maintenance and production of high-quality products (Chemwok, 2016). The sector provides many opportunities for entrepreneurship. The entrepreneurial farmer can take advantage of any of the avenues from assembler, processor, and distributor to local and international consumers (Olatomide & Olowa, 2015).

Table 2.1: Summary of Literature and Research Gaps

METHODOLOGY	SUMMARY	KNOWLEDGE GAPS	PROJECT
Waruguru (2018) Assessment of entrepreneurship policy foundations of the youth, women and Uwezo funds in Kenya. Exploratory study	The policy for the growth of entrepreneurship targets financial support. They neglect the growth of skills and the motivation factor, which can encourage entrepreneurship.	The research should have brought out the role played by the private sector and entrepreneurs in policy formulation how they can participate especially at the county level.	Policy is the second most crucial factor affecting the growth of entrepreneurship. Many people are aware of the training and financial support provided by the government, but very few can take advantage of them.
Sambo (2016) Effect of policy and access to credit on entrepreneurship growth among the youth in Kibera district Kenya. Quantitative descriptive design	A positive relationship exists between the growth of entrepreneurship and access to credit and policy. The main issues addressed by policy is lack of funding. The focus was on MSEs and the Jua Kali sector, how these enterprises could access credit, creating an enabling environment and non-financial promotional programmes	The factors that prevented some of the youth from getting information about funding, especially those involved in agricultural activities.	
Musambanyi (2015) Entrepreneurship climate and its effect on entrepreneurial development in Kenya.	The policy on entrepreneurship is mainly focused on funding. Entrepreneurship in Kenya has become necessity-based, and the majority of start-ups fail. the policy	The effect of financial support and how this has affected entrepreneurship development in agriculture over time has not been addressed.	

An exploratory, descriptive study	should generally include training		
Robb, et al. (2014) Ghana, Mozambique, and Kenya and the effect of entrepreneurial education and training. Case study	The study noted that the potential in Kenya for entrepreneurship, the entrepreneurial culture in Kenya is not good. Education can help improve entrepreneurial culture.	The study failed to mention entrepreneurship in agriculture and how it is affected by formal education and training	Culture plays a role in entrepreneurship growth, providing a safe, supportive environment that promotes entrepreneurship. Support comes from mainly family members and other fellow entrepreneurs.
Dike & Onwuka (2016) Entrepreneurial perception and growth of beekeeping in Abia state, Nigeria. Survey method	The culture promoted fear of beekeeping. Women could not practise beekeeping. The community lack knowledge of beekeeping practices. This contributed to low entrepreneurial involvement.	The study revolved around the fear of bees. It had very little on the entrepreneurial aspect of beekeeping.	
Olatomide and Olowa (2015) Factors affecting the development of agribusiness in Nigeria. Descriptive analysis	Marketing was the fifth most effective factor in hindering development. Entrepreneurship growth depends on access to markets. The study showed that using knowledge, about the regional and international marketing trends, fair prices of agricultural products can have a positive effect on	The research, however, did not bring out the effect of the global market today. How agriculture fits into the changing environment and how the market aspect can improve to increase the number of entrepreneurs in agriculture.	Access to the market is the most critical factors for the growth of entrepreneurship. Information about how to access diverse markets Encourages entrepreneurs to grow their enterprises.

	entrepreneurship in agriculture. The study showed the problems plaguing most African countries.		
Oyoo (2016) Impact of capital accessibility and growth of SMEs in Migori County. Cross-sectional survey design	Steep collateral requirements and scattered information affect many SMEs. Financial institutions offered limited support in the expansion of businesses beyond micro-levels. Nevertheless, financial knowledge on the side of the entrepreneur played a significant role in improving their chances. High-Interest rates and discrimination based on age, gender, collateral requirements, and education negatively affect many. Entrepreneurs opted to use personal savings and loans from family and friends.	Entrepreneurs in agriculture face unique challenges. The literature provides no knowledge of the effect of different sources of capital on agricultural entrepreneurs.	Financial support is important for the growth of entrepreneurship. Many entrepreneurs rely on savings and support from family and friends since most of them cannot provide collateral or pay off the interest rate accrued from loans.
Mutuku (2014) Factors influencing the growth of women	Challenges that are facing many women are the influence of gender roles, lack of property	These factors affect both men and women entrepreneurs. the research should have been more specific, showing the effect of	

entrepreneurial ventures in Mbooni Constituency. Descriptive survey design	ownership right, which affects accessibility to finances from formal organisations like banks. Low education levels and government and regulatory frameworks that do not encourage entrepreneurship.	gender-specific responsibilities like childbearing to entrepreneurship goals among women, especially those engaged in agricultural activities.	

Source: Research, 2020

2.4 Conceptual Framework

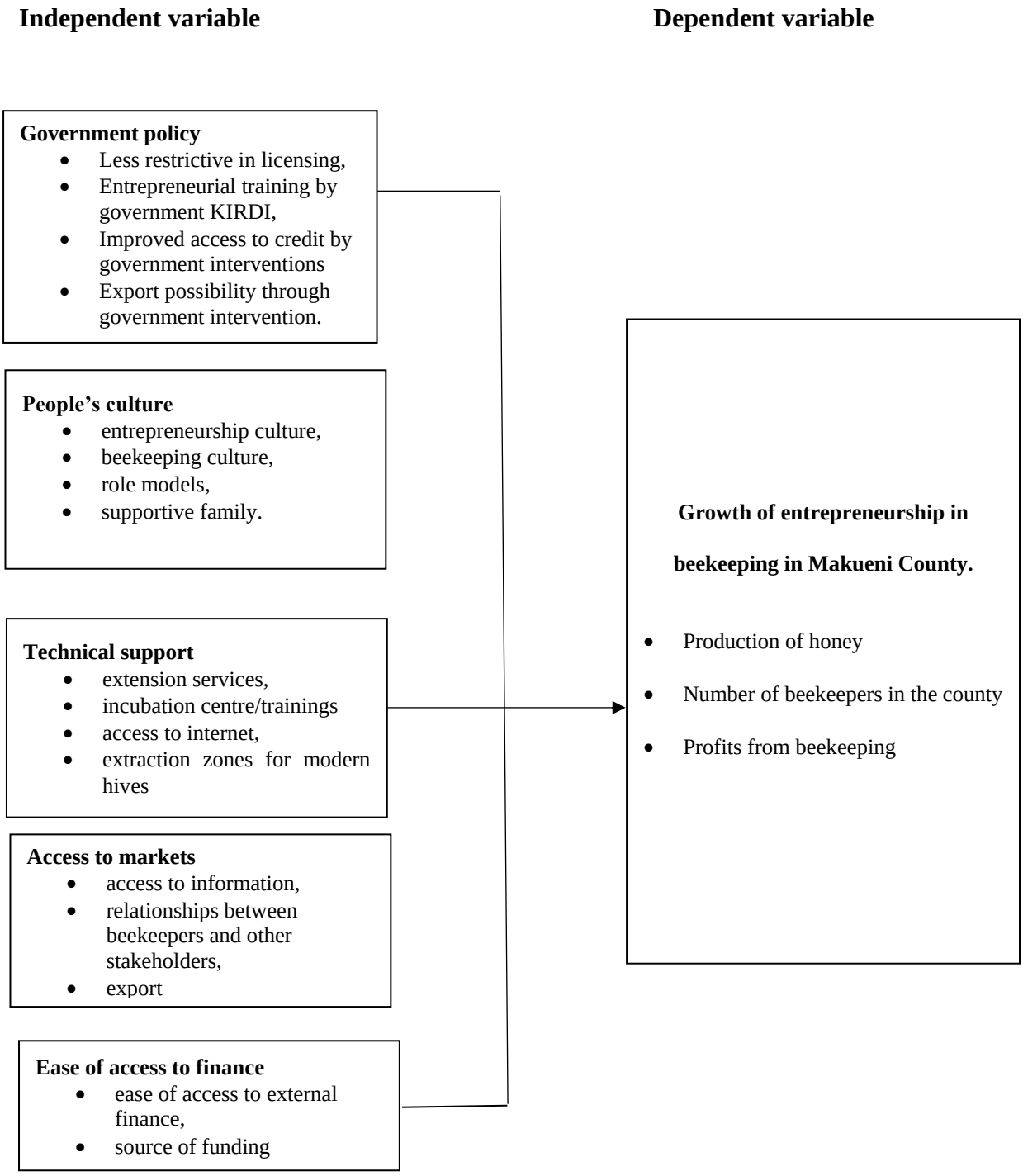

Figure 2.1: Conceptual Framework

Source : Research, 2020

Figure 2.1 represents the conceptual framework adopted for the project. It is divided into two parts the independent and dependent variables and how the two are connected. The independent variables highlight significant factors that directly affect growth of entrepreneurship. The framework attempts to define these variables in relation to the growth of entrepreneurship in the beekeeping sector in Makueni County. Policies enforced by the government affect the entrepreneurial environment in beekeeping. The ease of acquiring licensing, training, credit, and assistance to reach export markets. Culture, explained by the entrepreneurial culture of beekeepers, beekeeping culture, availability of successful commercial beekeepers as role models and support from family in Makueni County.

Technical support allows for adoption of modern technology which is specified by continuous extension services, trainings, access to internet and extraction zones for modern hives which require specialised machinery. Access to markets allows for growth of enterprises and increase in incomes and is explained by availability of information on markets, the relationship between stakeholders in the beekeeping chain and access to export. Access to finance is represented by the available sources of funding for commercial beekeepers and the ease of access of those funds. Availability of these factors leads to the growth of entrepreneurship in beekeeping in Makueni County. The growth of the beekeeping sector can be ascertained if there is an increase in honey production, number of beekeepers and profit from beekeeping ventures.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter included the procedure for data collection and analysis to answer the research questions. The sections within the chapter are research design, target population, sampling, research instruments, validity and reliability, data collection procedures, data analysis techniques, and research questionnaire.

3.2 Research design

Descriptive research design was used to understand entrepreneurship in beekeeping in Makueni County (Mugenda, 2008). Descriptive design was ideal as the study tried to understand the factors promoting entrepreneurship growth in the beekeeping sector in Makueni County. Descriptive design helps when the characteristics under investigation are known to exist, and more information is needed (Kumar, 2011). The way access to market, access to finances, technical support, policies, and culture determine the growth of entrepreneurship in the beekeeping sector needs to be understood.

3.3 Target population

According to the county's department of agriculture, there was an estimated 5,100 bee farmers distributed in Makueni County (Department of agriculture, Makueni, 2019). The sampling frame for this study was 366 farmers who were in the county database registered in Kathonzweni and Kibwezi (Makueni County statistics, 2019).

3.4 Sampling procedure and sample size

The selected sample of beekeepers was from Kibwezi and Kathonzweni. Adequate sample size can be between 10 %, and 30 % according to Mugenda and Mugenda (2003). As such, thirty per cent of 366 was the representative sample. It brought the sample size for the study to 110 individuals. Simple random sampling ensured that everyone within that criteria had an equal chance of selection (Kumar, 2011).

Table 3.1 Distribution of sample size

County database sample	No. of registered beekeepers	Sample size
Kibwezi	202	61
Kathonzweni	164	49
Total	366	110

Source: Research data, 2020

3.5 Data collection instrument

Questionnaires helped to collect data because of the wide geographic distribution of the respondents, and they reduced bias. The questionnaire used both closed and open ended questions. Closed questions were useful since they brought out facts. Open-ended questions help to understand the respondents' point of view (Kumar, 2011). To understand the entrepreneurial environment, we needed to know what was happening and the perception of the actual beekeepers. The information generated provided both quantitative and qualitative data.

3.6 Pilot study

Data was collected from a small group from Kathonzweni and Kibwezi to correct any problems with the questionnaire that might arise when dealing with the target population (Mugenda, 2008). The pilot study conducted gave reliability of 0.77 calculated using SPSS. The value showed that forty-one items within the questionnaire correlated highly among themselves and measured the growth of entrepreneurship (Mugenda, 2008). As such, the questionnaire was used to collect data.

3.7 Validity and Reliability

Data collected needs to be accurate and true. To ensure this, the tools used in the collection of data need to yield accurate results. Validity and reliability ensure the questionnaires achieve this goal (Mugenda, 2008).

3.7.1 Validity of the instrument

Validity ensured that the questions asked, effectively measured the objectives under investigation. Content validity measures the degree to which data collected represents a specific concept. Each question was linked to an objective to ensure content validity (Kumar,2011). According to Mugenda (2008), professionals can be used to check for content validity; one should assess the concept the questionnaire is evaluating the other should look at the set of items and how accurately they represent the concept. The questionnaire was evaluated and approved by officials within the beekeeping institute.

3.7.2 Reliability of research instrument

Reliability of the research instrument is the degree same results after repeated trials are yielded. Cronbach's alpha measured the reliability of the questionnaire. It helped to understand how all the items in the test measured the same concept. The reliability coefficient is good when it is close to 1.0. generally, when alpha is less than 0.6, then it is considered weak, those around 0.7 acceptable and when it exceeds 0.80, then the questionnaire is reliable (Sekaran, 2003). Alpha was determined using SPSS.

3.8 Data collection procedure

Beekeeping experts from two groups helped to collect the data, one based in Kibwezi and the other in Kathonzweni. This was because of the significant distance that needed to be covered. The respondents filled and returned the questionnaires immediately. Ensuring a high response rate and the cost and time required reduced. In case of any language barrier, the local officials were available for clarification.

3.9 Data analysis technique

Descriptive analysis helped to analyse the data. The aim was to give a clear picture of the entrepreneurial environment in Makueni County for beekeepers. Percentages mean and standard deviation of the data were presented in tables and explanations offered. Regression coefficient used, identified the factors that impact the growth of entrepreneurship significantly in beekeeping in Makueni County.

$$y=\beta_0 +\beta_1 x_1+ \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e$$

where

y was the dependent variable (growth of entrepreneurship in beekeeping in Makueni County)

β_0 was a constant that indicated the value of the dependent variable at zero

x was the independent variable (people's culture, government policies, technical support, access to market and access to finance)

β was the coefficient of the independent variable.

e was the error residual the difference between the actual observation and the regression line.

3.10 Ethical considerations

Ethical standards protect participants from any harm that could arise as a result of the project (Mugenda, 2008). The data collected did not contain sensitive information about the respondents. Participation was voluntary after a clear explanation of the nature and purpose of the study. A cover letter that clearly stated the reason for the project helped.

CHAPTER FOUR

THE RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter showed the data results and analysis using SPSS. Section one defines the respondents in terms of age, gender, marital status, number of hives owned and years in beekeeping. Section two contains the descriptive analysis of the variables to see the effect of policies, culture, access to market, access to finances and availability of technical support on growth of entrepreneurship in agriculture in Makueni County.

4.2 Demographic analysis

4.2.1 Cronbach's alpha

As shown in Table 4.1 below, a reliability analysis carried out on the growth of entrepreneurship in beekeeping comprised of 43 items. Cronbach's alpha showed that the questionnaire was reliable $\alpha = 0.80$, which was good since the value of alpha needs to be above 0.7 to show reliability.

Table 4.1 Cronbach's alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.802	0.843	43

Source: Research data, 2020

4.2.2 Response rate

Table 4.2 showed a 96.4 % response rate. Out of the 110 questionnaires given to the respondents, all were returned. 3.6 % of the questionnaires were not completely filled, and 1.8 % were defective. The acceptable response rate is 80% and above. Calculated as the number of questionnaires returned compared to those distributed. It could also be the number of questionnaires that are usable compared to the number that is available (Fincham,2008).

Table 4.2 Questionnaire Response Rate

Response Rate	Frequency	Percentage
Issued Kathonzweni	49	44.5%
Issued Kibwezi	61	55.5%
Returned	110	100.0%
Incompletely filled	4	3.6%
Completely filled	104	96.4%
Defective	2	1.8%

Source: Research data, 2020

4.2.3 Gender of respondents

The results in table 4.3 below showed the small difference between male and female beekeepers. Majority of the beekeepers are female; these being 53.7 per cent while the men were 46.3 per cent. Modern beekeeping has significantly contributed to more women becoming involved. Women have a lot of support from their families to venture into beekeeping and face the same challenges as men. This contradicts with Mutuku (2014), sets women apart as being affected by lack of finances. Due to discrimination by financial institutions to grow entrepreneurial ventures.

Table 4.3 Gender of respondents

Gender					
		Frequency	Per cent	Valid Percent	Cumulative Percent
	Male	50	46.3	46.3	46.3
	Female	58	53.7	53.7	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.2.4 Age of respondents

Table 4.4 showed 56.5% beekeepers are 40 to 59 years of age, followed by those between the ages of 20 to 39 at 26.9 %. Many people within these age brackets are active, have many financial obligations and are willing to learn new skills. The least active group are those above sixty years of age, forming 15.7 % of the target group. This can be attributed to the effort and skills required to have a productive beekeeping venture.

Table 4.4 Age of the respondents

Age		Frequency	Per cent	Valid Per cent	Cumulative Per cent
	20-39	29	26.9	26.9	27.8
	40-59	61	56.5	56.5	84.3
	60 and above	17	15.7	15.7	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.2.5 Marital status of respondents

Results in table 4.5 below showed that many of the beekeepers were married, 77.8 %. These were followed by those who were single at 13.9 %. It proved that beekeeping is acceptable to the community as a viable agricultural activity. Many families support it and embrace it.

Those who are widows/widowers made up 8.3 % of the target population, and they continued with their beekeeping activities.

Table 4.5 Marital Status of respondents

Marital status					
Marital Status		Frequency	Per cent	Valid Percent	Cumulative Percent
	Single	15	13.9	13.9	13.9
	Married	84	77.8	77.8	91.7
	Widowed/Widower	9	8.3	8.3	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.2.6 Education

Results from table 4.6 below showed that the beekeepers in Makueni have a good educational background. The majority, 59.3 % have a reached secondary. 25% have primary level education, 10. 2 % have tertiary level education. Which is positive since the majority of beekeepers can be trained and adopt new technology if given the opportunity.

Table 4.6 Level of education

Level of education		Frequency	Per cent	Valid Percent	Cumulative Percent
	Primary	27	25.0	25.0	25.0
	Secondary	64	59.3	59.3	84.3
	Tertiary	11	10.2	10.2	94.4
	Others	6	5.6	5.6	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.2.7 Years in beekeeping

80.6% of the participants had over three years' experience in beekeeping, as displayed in table 4.7. Only 2.8 % of the respondents had one year of experience. Hence the respondents were experienced in commercial beekeeping. Knowledgeable about the challenges affecting entrepreneurship in beekeeping in Makueni County.

Table 4.7 Years in beekeeping of respondents

Years in beekeeping					
Years in beekeeping		Frequency	Per cent	Valid Percent	Cumulative Percent
	0-1	3	2.8	2.8	2.8
	1-3	18	16.7	16.7	19.4
	3-5	42	38.9	38.9	58.3
	5 years and above	45	41.7	41.7	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.2.8 Number of hives

Table 4.8 below showed that 50% of those questioned owned six to fifteen hives, 28.7% of them owned one to five hives, 16.7% of them owned sixteen to thirty hives, and only 4.6 % of them owned more than thirty hives. Based on the number of hives, 71.3 % of the respondents were practicing beekeeping commercially.

Table 4.8 Number of hives

Number of hives					
Number of hives		Frequency	Per cent	Valid Percent	Cumulative Percent
	1-5	31	28.7	28.7	28.7
	6-15	54	50.0	50.0	78.7

	16-30	18	16.7	16.7	95.4
	30 and above	5	4.6	4.6	100.0
	Total	108	100.0	100.0	

Source: Research data, 2020

4.3 Descriptive Statistics

4.3.1 Government policy and the effect on growth of entrepreneurship

The importance of policy to the growth of entrepreneurship could be seen in table 4.9. 75% of those questioned agreed that it was easier to start a registered business now. 75 % of the respondents were positive about the training. 84.8 % agreed that the government had promoted entrepreneurship in agriculture through the media.

Table 4.9 Factors contributing to an effective government policy

Percentage (%)	The government has succeeded in reviewing all restrictive regulatory requirements that hinder growth of entrepreneurship such as licensing	The government has succeeded in ensuring awareness of access to credit through YEDF, Uwezo fund, WEF.	The government has promoted entrepreneurship through trainings provided by public institutions such as KIRDI and local learning institutions.	The government has succeeded in training entrepreneur to participate in the international market due to the strict regulations	The government has succeeded in promoting entrepreneurship through mass media.
strongly agree	54.5	54.5	57.1	47.3	52.7
Agree	20.5	10.7	17.9	23.2	32.1
neutral	8.0	13.4	6.3	6.3	2.7
disagree	9.8	11.6	8.9	12.5	2.7
strongly disagree	2.7	5.4	5.4	6.3	5.4
	95.5	95.5	95.5	95.5	95.5
No response	4.5	4.5	4.5	4.5	4.5
	100.0	100.0	100.0	100.0	100.0

Source: Research data, 2020

From table 4.10, we saw from the mean values the respondents were positive on the role the government had played in providing effective policy for the growth of entrepreneurship in beekeeping in Makueni County. However, the statements referring to financial support and training in marketing had a standard deviation of 1.31 and 1.30, respectively. Which is a bit high, showing some entrepreneurs have a hard time accessing these services.

The study agrees with Waruguru (2018); the opportunity pillar was satisfied, financial and advisory services are available for individuals such as capital, information, counselling, and advisory services. Some entrepreneurs were not able to access financial support, which supported, Sambo (2016) who ascertained that one major issue for entrepreneurs was lack of information on the support provided by the government.

Table 4.10 Distribution by mean of factors contributing to an effective government policy

	Mean	Std Deviation
The government has succeeded in reviewing all restrictive regulatory requirements that hinder growth of entrepreneurship such as licensing	1.80	1.136
The government has succeeded in easing access to credit through YEDF, Uwezo fund, WEF.	1.98	1.310
The government has promoted entrepreneurship through trainings provided by public institutions such as KIRDI and local learning institutions.	1.82	1.235
The government has succeeded in training entrepreneurs to participate in the international market due to the strict regulations	2.03	1.299
The government has succeeded in promoting entrepreneurship through mass media.	1.70	1.057

Source: Research data, 2020

4.3.2 People's culture and the effect on growth of entrepreneurship

The effect of culture on the growth of entrepreneurship in beekeeping in Makueni county can be seen from table 4.11 below. 78.6 % of the respondents confirmed that entrepreneurship is popular in the community. 92.9 % were positive about the profitability of beekeeping sector. 66.1% of respondents showed that collaboration between the stakeholders in the sector was high. 70.5 % of the respondents indicated that there was great support from family members, and 70.6% confirmed the positive influence of beekeeping organisations within the community.

Table 4.11 Elements of people's culture that contribute to entrepreneurial growth

	Entrepreneurship is popular in the community	Entrepreneurship in beekeeping is profitable	There is a collaboration among beekeepers in your area	Cultural beliefs determined your decision on becoming an entrepreneur in beekeeping.	The number of entrepreneurs in beekeeping within the community influenced your decision to take it up.	Entrepreneurship in beekeeping attracts great support from family members and the community	Organizations within the community have a great influence on members of the community and their adopting beekeeping for commercial purposes
strongly agree	51.8	79.5	56.3	21.4	38.4	60.7	51.8

agree	26.8	13.4	9.8	17.0	16.1	9.8	18.8
neutral	7.1	1.8	10.7	17.9	6.3	3.6	6.3
disagree	8.0		10.7	13.4	17.0	15.2	14.3
strongly disagree	1.8	0	5.4	25.9	17.9	6.3	4.5
	95.5	94.6	92.9	95.5	95.5	95.5	95.5
No response	4.5	5.4	7.1	4.5	4.5	4.5	4.5
	100.0	100	100.0	100.0	100.0	100.0	100.0

Source: Research data, 2020

A few of the respondents took up beekeeping influenced by the community as seen from the mean in table 4.12. However, from the standard deviation of 1.60, the impact is not the same for all of them. Family support for entrepreneurship in beekeeping is substantial since the mean is below 2.0. From the data, there was a good relationship between the beekeepers and the beekeeping organisation. In line with Brush (2014), that culture in a community can influence the interactions between stakeholders and the adoption of new technology. The results also agreed with Robb, *et al*. 2014, who stated if the community accepts entrepreneurs, views them positively, then it will flourish and be prevalent. It can be seen from the positive view many of the respondents had on the profitability of beekeeping and support from family. Culture is one of the major hindrances to entrepreneurship.

Table 4.9 Distribution by mean of factors contributing to culture

	Mean	Std Deviation
Entrepreneurship is popular in the community	1.76	1.036
Entrepreneurship in beekeeping is profitable	1.18	0.432
There is collaboration among beekeepers in your area	1.91	1.308
Cultural beliefs determined your decision on becoming an entrepreneur in beekeeping.	3.06	1.522

The number of entrepreneurs in beekeeping within the community influenced your decision to take it up.	2.58	1.596
Entrepreneurship in beekeeping attracts great support from family members and the community	1.92	1.381
Organizations within the community have a great influence on members of the community and their adopting beekeeping for commercial purposes	1.96	1.281

Source: Research data , 2020

4.3.3 Technical Support and the effect on growth of entrepreneurship

Table 4.13 revealed 94.7 % of those who participated found practical support to be necessary for the growth of entrepreneurship. 85.8% concluded that networking among the entrepreneurs and other stakeholders such as extension officers would have a high impact on the growth of entrepreneurship in agriculture. 73.3 % of the respondents strongly agreed that infrastructure, such as roads and the internet, was very important for the growth of entrepreneurship.

Table 4.10 Key considerations for technical support for entrepreneurs in agriculture

Percentage (%)	Practical support in terms of hive equipment helps in the growth of entrepreneurship, especially in beekeeping.	Skill development classes can encourage entry into entrepreneurship and growth of existing enterprises.	Access to infrastructures such as the internet and roads can grow entrepreneurship in beekeeping.	Collaborations among entrepreneurs, such as suppliers, customers, learning institutions, extension officers, the private sector can help in the growth of entrepreneurship in beekeeping.
strongly agree	81.3	75.0	73.2	68.8
agree	13.4	17.9	19.6	17.0
neutral	0.9	2.7	1.8	2.7
disagree	0	0	0.9	6.3

strongly disagree	0	0	0	0.9
	95.5	95.5	95.5	95.5
No response	4.5	4.5	4.5	4.5
	100.0	100	100.0	100.0

Source: Research data, 2020

The mean values displayed in table 4.14 showed a consensus that technical support is necessary for the growth of entrepreneurship in beekeeping. It was defined as the provision of modern equipment, collaborations, infrastructure, skill development classes and availability of extension officers in the field. The low standard deviation in each point showed that the respondents did not differ in their opinions. It was supported by Mbae (2010), who pointed out how low technical support was for beekeepers. A secure link between technology development and other actors in agriculture is needed. Putting focus on building the capabilities of farmer associations, improving farming practices through innovation, and expansion of extension services so that farmers can access new technology (World Bank, 2014).

Table 4.11 Distribution by mean of factors contributing to technical support

	Mean	Std Deviation
Practical support in terms of hive equipment helps in the growth of entrepreneurship, especially in beekeeping.	1.17	0.445
Skill development classes can encourage entry into entrepreneurship and growth of existing enterprises.	1.24	0.492
Access to infrastructures such as the internet and roads can grow entrepreneurship in beekeeping.	1.27	0.542
Accessibility to experts in entrepreneurship can lead to growth of entrepreneurship (in this case entrepreneurial beekeepers and extension officers).	1.34	0.764

Collaborations among entrepreneurs, such as suppliers, customers, learning institutions, government officials, the private sector can help in the growth of entrepreneurship in beekeeping.	1.47	0.904

Source: Analysis data , 2020

4.3.4 Access to markets and the effect on growth of entrepreneurship

78.5% of the participants, looking at table 4.15, considered access to markets challenging. The challenge that affected the respondents most was lack of training and information. We can see that 91.1 % of the respondents agreed that training in marketing was relevant. 90.2 % of the respondents had little knowledge of how to access different markets and so were limited to selling their honey locally as seen in table 4.16 below where 53.6 % of the respondents sold their honey to their neighbours and other local consumers.

Table 4.12 factors contributing to ease of access to markets

	Access to the market is challenging for many entrepreneurs (%)	Many entrepreneurs in beekeeping are not familiar with the international market and how to access it. (%)	Many entrepreneurs in Beekeeping can sell directly to consumers without intermediaries (%)	Information about beekeeping products, trends, and tastes of consumers is not readily available for entrepreneurs in beekeeping. (%)	Marketing should be included in training for entrepreneurs in beekeeping. (%)
strongly agree	57.1	66.1	71.4	48.2	75.0
agree	21.4	24.1	21.4	19.6	16.1
neutral	5.4	2.7	1.8	4.5	0.9
disagree	5.4	1.8	0.9	17.0	2.7

strongly disagree	6.3	0.9	0	6.3	0.9
	95.5	95.5	95.5	95.5	95.5
No response	4.5	4.5	4.5	4.5	4.5
	100.0	100.0	100.0	100.0	100.0

Source: Research data, 2020

Table 4.13 Markets for entrepreneurs in Makueni County

	To whom do you sell your honey (%)
Self	7.1
Local Market	11.6
Neighbours and other local consumers	53.6
Middlemen	6.3
Kibwezi Honey Factory	8.9
Consumers in urban areas	8.9
Total	96.4
No response	3.6
	100.0

Source: Research data, 2020

The means from table 4.17 were below 2.5, much lower than the theoretical mean of 3.0. The respondents agreed with the statements that information about various market opportunities was scarce and getting market for their products was a challenge. The standard deviation was low for three statements: availability of information of international markets, sale of products without the use of intermediaries and marketing in training for skill development of entrepreneurs, showing a general agreement across all respondents.

The standard deviation was high for access to markets is a challenge, and information about market trends. It showed the different opportunities available for entrepreneurs in the same area and sector which can explain why some enterprises were more successful than others. Information about markets needs to be accessible by entrepreneurs for their enterprises to

grow. This agrees with the research conducted by Olatomide and Olowa (2015), they found that one major factor that hinders entrepreneurial growth in agriculture is marketing. For any venture, information from the market is vital to discover opportunities and take advantage of them. Knowledge about the consumers and their specific requirements also ensure growth (Lam & Harker, 2015).

Table 4.14 Distribution by mean of factors contributing to access to market

	Mean	Std Deviation
Access to the market is challenging for many entrepreneurs	1.77	1.194
Many entrepreneurs in beekeeping are not familiar with the international market and how to access it.	1.40	0.725
Many entrepreneurs in beekeeping can sell directly to consumers without intermediaries.	1.29	0.550
Information about beekeeping products, trends, and tastes of consumers is not readily available for entrepreneurs in beekeeping.	2.09	1.363
Marketing should be included in training for entrepreneurs in beekeeping.	1.31	0.719

Source: Analysis data, 2020

4.3.5. Access to Finances and the effect on growth of entrepreneurship

95.4% % of the participants, as displayed on table 4.18, agreed that if access to financial credit were readily available, then it would be easy to grow their venture. It is because 72.9% showed that the capital needed to start and grow a successful enterprise was high. Sources for capital for beekeepers were not readily available because 71% of the respondents lacked a constant flow of income or collateral.

Table 4.15 Factors affecting access to finance

%	Sources of capital for entrepreneurs in beekeeping is not readily available	Access to loans for entrepreneurial beekeepers is not easy due to bias by banks (flow of income is not constant and no collateral).	If entrepreneurs have access to financial credit, they can grow their enterprises.	High-interest rates on loans is a barrier to accessing financial credit for entrepreneurs.	Entrepreneurship in beekeeping requires a large amount of capital to be able to start and grow the enterprise.
strongly agree	46.7	52.3	80.4	58.9	50.5
agree	15.9	18.7	15.0	15.9	22.4
neutral	4.7	9.3	1.9	10.3	21.5
disagree	22.4	15.9	0.9	11.2	5.6
strongly disagree	10.3	3.7	1.8	3.7	0
	100.0	100.0	100.0	100.0	100.0

Source: Research data, 2020

Table 4.19 below showed, from the means that the participants were positive about the statements affecting financial credit. The standard deviation though indicated that ease of access to finance was subjective. Some individuals did not see it as an obstacle. Some have other commercial activities, have been entrepreneurs for more years, and are older. It supported Mbae (2010), he explained that a successful entrepreneurial beekeeping venture required financial backing, which was not available from banks, due to steep borrowing rates and collateral requirement. The bank rates on loans encourage entrepreneurs to seek capital from savings or family, limiting the expansion of ventures (Robb *et al*. 2014).

Table 4.16 Distribution by mean of factors contributing to access to finances

	Mean	Std Deviation

Sources of capital for entrepreneurs in beekeeping is not readily available	2.34	1.498
Access to loans for entrepreneurial beekeepers is not easy due to bias by banks (flow of income is not constant and no collateral).	2.00	1.266
If entrepreneurs have access to financial credit, they can grow their enterprises.	1.35	1.134
High-interest rates on loans is a barrier to accessing financial credit for entrepreneurs.	1.85	1.212
Entrepreneurship in beekeeping requires a large amount of capital to be able to start and grow the enterprise.	2.09	1.370

Source: Analysis data, 2020

4.3.6 The growth of entrepreneurship in beekeeping

The potential for beekeeping entrepreneurship is displayed on table 4.20. 93.5 % of the respondents agreed that beekeeping could be a source of income for families. 92.5% of the respondents agreed that beekeeping provided a lot of entrepreneurial opportunities. 75.7% of the respondents strongly felt that honey production has increased over the years.

Table 4.21 shows the means of the factors describing entrepreneurial growth in beekeeping to be 2.02 and below, which is under the theoretical mean of 3.0. Showing in Makueni County, beekeeping is a lucrative entrepreneurial sector. This agrees with the research conducted by Dike and Onwuka (2016), who showed that entrepreneurial beekeeping is lucrative, but failure of the sector is due to financial challenges together with lack of technical skills in modern beekeeping.

Table 4.17 The features of entrepreneurial growth in beekeeping

%	The number of entrepreneurs in beekeeping has increased over the years.	Honey production in the county has increased over the years.	Entrepreneurial approach to beekeeping has provided a steady income for your family.	More opportunities have emerged in beekeeping over the years.
strongly agree	69.2	49.5	61.7	67.3
agree	19.6	26.2	31.8	25.2
neutral	3.7	4.7	2.8	2.8
disagree	4.7	12.1	3.7	3.7
strongly disagree	2.8	7.5	0	0.9
	100.0	100.0	100.0	100.0

Source: Research data, 2020

Table 4.18 Distribution by mean of factors contributing to entrepreneurial growth in beekeeping

	Mean	Std Deviation
The number of entrepreneurs in beekeeping has increased over the years.	1.52	0.975
Honey production in the county has increased over the years.	2.02	1.310
Entrepreneurial approach to beekeeping has provided a steady income for your family.	1.49	0.732
More opportunities have emerged in beekeeping over the years.	1.46	0.804

Source: Analysis data, 2020

4.3.7 Regression analysis

R was found to be .804, showed by the model summary table 4.22, which displayed the quality of prediction of the dependent variable, growth of entrepreneurship, was right. The value of R^2, the coefficient of determination, was 0. 647 which showed that the independent variables, government policy, people's culture, technical support, access to markets and

access to finance, explained 64.7 % of the variability of the growth in entrepreneurship in beekeeping in Makueni County.

Table 4.19 Model summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.804[a]	0.647	0.630	0.44404	0.647	37.030	5	101	0.000
a. Predictors: (Constant), access to markets, technical support, people's culture, .Government policy, access to finance									
b. Dependent Variable: the growth of entrepreneurship									

Source: Analysis data, 2020

Table 4.20 Anova

Table 4.23 below indicated whether the regression model was the best fit. The table showed that the independent variables (government policy, people's culture, technical support, access to market and access to finance) reliably predicted the dependent variable (growth of entrepreneurship) since the p-value should be $p < 0.05$ from the table we saw $p < 0.001$.

	Sum of Squares	df	Mean Square	F	Sig.
Regression	36.506	5	7.301	37.03	.000b
Residual	19.914	101	0.197		
Total	56.421	106			

Source: Research data, 2020

a. Dependent Variable: Growth of entrepreneurship

b. Predictors: (constant), government policy, people's culture, technical support, access to markets, access to finance.

Table 4.24 showed the regression equation for predicting the growth of entrepreneurship in beekeeping in Makueni county from government policy, culture, access to markets, access to finance and technical support. From the standardised coefficient column, we saw that the growth of entrepreneurship was influenced mainly by access to markets, government policy, and access to finance. People's culture and technical support affected growth at a lower level compared to the other three.

Table 4.21 Distribution of Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.055	0.178		0.309	0.758
Government policy	0.257	0.079	0.333	3.239	0.002
People's Culture	-0.026	0.086	-0.024	-0.298	0.766
Technical support	-0.029	0.119	-0.018	-0.244	0.808
Access to finance	0.052	0.093	0.068	0.564	0.574
Access to markets	0.684	0.132	0.508	5.203	1.034

Source: Research data, 2020

The equation:

$Y = 0.055+0.333X_1-0.024X_2 -0.018X_3+0.068X_4+0.508X_5$

where

Y is the growth of entrepreneurship in beekeeping in Makueni County

Constant 0.055 shows that if government policy, people's culture, technical support, access to finance and access to markets were zero, then the growth of entrepreneurship in beekeeping would be 0.055.

X_1 is positive 0.333, which explains that one unit change of government policy, results in 0.333 unit increase in the growth of entrepreneurship in beekeeping in Makueni County.

X_2 – 0.024, which explains that one unit change of people's culture, results in a 0.026 unit decrease in the growth of entrepreneurship in beekeeping in Makueni County.

X_3 is negative 0.018, shows that one unit change of technical support results, in a 0.018 decrease in growth of entrepreneurship in beekeeping in Makueni County.

X_4 is positive 0.068, shows that one unit change of access to markets, results in an 0.68 increase in growth of entrepreneurship in beekeeping in Makueni County.

X_5 is positive 0.508, shows that one unit change of access to finance, results in an increase of 0.508 in growth of entrepreneurship in beekeeping in Makueni County.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter represents the summary of the study findings, the conclusion from the results of the study, and the recommendations drawn of the project. These are from the research objective, which was to investigate the factors influencing the growth of entrepreneurship in the beekeeping sector in Makueni County.

5.2 Summary

The significant difference between the potential of honey production and the actual honey produced in Kenya is a problem within the sector. In Makueni county, there has been an eighty percent drop in honey production over the years. This is an indication that there are factors that are either hindering growth in the sector or pushing farmers out of the sector all together. However, research on entrepreneurship growth within the beekeeping sector to understand the root causes of challenges is scanty. The main purpose for this study was to assess the factors that influence the growth of entrepreneurship in the beekeeping sector in Makueni County using descriptive analysis. The main factors considered were government policy, people's culture, technical support, ease of access to markets and ease of access to finance.

Government policy had a positive influence on entrepreneurship growth in beekeeping in Makueni County. Promotion of beekeeping as a commercial activity for the youth and women has been significant. Through beekeeping trainings, modern beekeeping practised are known. Majority are unable to adopt them fully, due to the initial high cost of capital.

This promoted skill development in beekeeping. Entrepreneurship in beekeeping was popular in the community and majority had family support. Gender was not a hinderance since both men and women practice beekeeping. Proving that culture affected the occupational choices of members of the community.

Access to markets was a significant challenge for entrepreneurship growth in beekeeping in Makueni county. The challenge that existed is lack of training in marketing and limited information on different market avenues. As such majority sold their honey in the local markets and to neighbours. Availability of information about the local and international markets is crucial for the growth of entrepreneurship in the sector. It would also instil confidence in pursuing entrepreneurship in beekeeping. Financial accessibility was made difficult by lack of collateral or a stable source of income since beekeeping provides unpredictable returns.

For entrepreneurship within the beekeeping sector to grow then the beekeepers need to have clear avenues through which to sell their products and make a profit. Entrepreneurs need to be trained in marketing, understanding market trends, and how to find opportunities within the market to exploit. Entrepreneurs also need government policies that motivate and develop their skill. In Kenya, there are several opportunities for entrepreneurship within the beekeeping sector, the drive, confidence, and expertise to exploit them profitably are lacking. Effective government policies specific to beekeeping can create a safe environment and address the quality of products and their production.

5.3 Conclusion

Growth in entrepreneurship in beekeeping is affected by many factors, and a combination of these factors can either lead to success or failure of farmers who practice beekeeping. To

understand the sector, we looked at government policy, people's culture, technical support, access to markets, and access to finance and the effect they have on entrepreneurship growth. Entrepreneurship in beekeeping could provide a steady source of income and food for those involved. Beekeeping is one sector that has excellent growth potential.

Entrepreneurship is vital for development. The beekeeping sector can develop significantly and reach full potential if the right policies are in place. Policy provides entrepreneurs with guidance and structure. The process of starting and running an enterprise is made more accessible. Individuals are trained and equipped with the essential tools to run and successfully manage a business. Entrepreneurial people are not limited because they do not have the needed resources. When entrepreneurs are in a specialised field like beekeeping, this requires training so that new technology can be embraced only then can entrepreneurial growth within the sector be achieved.

Culture within a community plays an essential role in entrepreneurship growth. The culture of a community is evident from the activities conducted by the people. The family, the most integral part of a community, can be a significant source of encouragement for entrepreneurs. If the culture is free, then gender is not as issue as seen in Makueni where both men and women practised entrepreneurial beekeeping. It creates a good background for development within the sector. Technical support for entrepreneurs in specialised areas is necessary. Entrepreneurs without support can lead to discouragement. Entrepreneurship in agriculture requires experts who can introduce and train on new technology and new methods of production.

Access to markets was seen as an essential factor for the growth of entrepreneurship. Information about different markets, and how to access them readily instils confidence.

Entrepreneurs need to have the assurance that once they have a product, they can make a profit out of it. Hence, they need education on marketing skills. If entrepreneurs have information about trends within the market, they equipped to decide on whether to continue with their ventures.

Finance is another factor that can hinder entrepreneurial growth, bee equipment and inputs are expensive, and therefore, farmers need cash to run an excellent modern enterprise. Entrepreneurship requires capital to start and run a successful business. Access to loans from banks is not easy for many entrepreneurs due to lack of collateral and the high-interest rates. It leads to many depending on family support or personal savings. As a result, many entrepreneurs stagnate others close down.

5.4 Recommendations

Skill development is an important area that needs to be addressed seriously by policy. It needs to be specific for beekeeping entrepreneurs. The policy needs to address marketing opportunities, guidelines on safety and production, guidelines on best practice to grow the sector to its full potential. Policy also needs to motivate potential entrepreneurs. Address the financial accessibility to enable more entrepreneurs to access funds. Technical support should be readily available for beekeepers. It can be provided by extension officers who visit and offer help to farmers whenever needed.

Market accessibility is crucial for the growth of entrepreneurship. Information about markets, both local and international, should be readily available for entrepreneurs. The government can help entrepreneurs' access external markets by creating supply chains that link them to consumers. It will increase profits improving the livelihood of the farmers and

ensuring the growth of the sector. Financial institutions should embrace flexible regulations to accommodate entrepreneurs who are starting.

5.4.1 Suggestions for further research

The study highlighted that many of the respondents would appreciate training in marketing. Research can be conducted on the training offered by the government to entrepreneurs, for example, how do trained entrepreneurs fair in the market. Further research can be to determine the entrepreneurial interest of beekeepers in Makueni and other honey-producing counties by assessing the number of entrepreneurs willing to adopt new technology, be part of cooperative groups, and explore new markets for their products.

Research can be on other factors affecting entrepreneurship growth to explain the low production of honey in the country. Entrepreneurship in apiculture in other counties can be conducted. Other variables can be considered, for example, managerial capabilities of beekeepers, record keeping skills, and the financial literacy of beekeepers. Further research can be on how the entrepreneurial behaviour of beekeepers can be changed so that the sector can be sustainable.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Ruth Watiri Mwangi.

P.O BOX 121-00202 KNH,

NAIROBI.

Dear Participant,

RE: REQUEST FOR PARTICIPATION IN STUDY.

Am assessing the growth of entrepreneurship in beekeeping in Makueni County. Am a master's student at Kenyatta University.

I kindly request for your help in completing the questionnaire below. This will enable me to answer my research questions, and understand the environment in which you, as beekeepers, carry out your activities. The information you give will not be made public.

Your assistance is highly appreciated.

Sincerely,

Ruth Mwangi. (D53/CTY/PT/26197/2011)

APPENDIX II: QUESTIONNAIRE

Am a student from Kenyatta University conducting academic research on the factors influencing the growth of entrepreneurship in beekeeping in Makueni County. All the information will be classified and used for this research only. Do not put down any personal details. Please answer with a tick or as applicable.

Section one: background information tick where appropriate.

1. Gender.

   a) Male. [ ]

   b) female [ ]

2. Age bracket.

   a) 20- 39 years [ ]

   b) 40- 59 years [ ]

   c) 60 years and above [ ]

3. Marital status.

   a) Single [ ]

   b) Married [ ]

   c) Widowed/widower [ ]

   d) Divorced/ separated [ ]

4. Highest level of education.

a) Primary [ ]

b) Secondary [ ]

c) Tertiary [ ]

d) Others. [ ]

5. Years in beekeeping

a) 0- 1 year [ ]

b) 1- 3 years [ ]

c) 3- 5 years [ ]

d) Five years and above [ ]

6. Number of hives

a) 1-5 hives [ ]

b) 6-15 hives [ ]

c) 16-30 hives [ ]

d) More than 30 hives. [ ]

7. Is beekeeping your main activity?

a) Yes. [ ]

b) No.

8. Are you involved in any other income-generating activity?

a) Yes. 〔 〕

〔 〕

b) No.

9. If yes, which one?

〔 〕

a) Employment.

〔 〕

b) Farming.

〔 〕

c) Business.

10. Reason for beekeeping not being your primary source of income?

11. How much do you sell a kg of honey/wax and to whom?

Section two: Government policies in the development of entrepreneurship in beekeeping.

Do you agree or disagree with the information presented below on the effect of policy on entrepreneurship growth in beekeeping. Please tick where appropriate. Strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5).

Statement	1	2	3	4	5
12. The government has succeeded in reviewing all restrictive regulatory requirements that hinder growth of entrepreneurship such as licensing					
13. The government has succeeded in ensuring awareness of access to credit through YEDF, Uwezo fund, WEF					
14. The government has promoted entrepreneurship through trainings provided by public institutions such as KIRDI and local learning institutions.					
15. The government has succeeded in training entrepreneurs to participate in the international market due to the strict regulations					
16. The government has succeeded in promoting entrepreneurship through mass media.					

Section three: People's culture of beekeeping in makueni

Do you agree or disagree with the information presented below on culture on entrepreneurial growth in beekeeping. Please tick where appropriate. Strongly agree, agree with, neutral, disagree with and strongly disagree.

Statement	1	2	3	4	5
17. Entrepreneurship is popular in the community					
18. Entrepreneurship in beekeeping is profitable					
19. There is collaboration among beekeepers in your area					
20. Cultural beliefs determined your decision on becoming an entrepreneur in beekeeping.					
21. The number of entrepreneurs in beekeeping within the community influenced your decision to take it up.					

22. Entrepreneurship in beekeeping attracts great support from family members and the community					
23. Organizations within the community have a great influence on members of the community and their adopting beekeeping for commercial purposes					

Section four: Technical support for the development of entrepreneurship for beekeepers.

How common is the following statement on the effect of technical support to entrepreneurship growth in beekeeping. Please tick where appropriate. Strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5).

Statement	1	2	3	4	5
24. Practical support in terms of hive equipment helps in the growth of entrepreneurship, especially in beekeeping.					
25. Skill development classes can encourage entry into entrepreneurship and growth of existing enterprises.					
26. Access to infrastructures such as the internet and roads can grow entrepreneurship in beekeeping.					
27. Accessibility to experts in entrepreneurship can lead to growth of entrepreneurship (in this case, entrepreneurial beekeepers and extension officers).					
28. Collaborations among entrepreneurs, such as suppliers, customers, learning institutions, extension officers, the private sector can help in the growth of entrepreneurship in beekeeping.					

Section five: Access to market.

Do you agree or disagree with the following statements on the effect of market access to entrepreneurship growth in beekeeping. Please tick where appropriate.

	i	ii	iii	iv	V
29. Access to the market is challenging for many entrepreneurs					
30. Many entrepreneurs in beekeeping are not familiar with the international market and how to access it.					
31. Many entrepreneurs in Beekeeping can sell directly to consumers without intermediaries.					
32. Information about beekeeping products, trends, and tastes of consumers is not readily available for entrepreneurs in beekeeping.					
33. Marketing should be included in training for entrepreneurs in beekeeping.					

Section six: Access to finances.

Are the statements below agreeable or disagreeable on the effect of financial accessibility to entrepreneurial growth in beekeeping. Please tick where appropriate. Strongly agree (i), agree with (ii), neutral (iii), disagree (iv), and strongly disagree (v).

.	i	ii	iii	iv	v
34. Capital for entrepreneurs in beekeeping is not readily available					
35. Access to loans for entrepreneurial beekeepers is not easy due to bias by banks (flow of income is not constant and no collateral).					
36. If entrepreneurs have access to financial credit, they can grow their enterprises.					
37. High-interest rates on loans is a barrier to accessing financial credit for entrepreneurs.					
38. Entrepreneurship in beekeeping requires a large amount of capital to be able to start and grow the enterprise.					

Section seven: the growth of entrepreneurship in beekeeping.

The following statements are agreeable and disagreeable with your perception on entrepreneurship growth in beekeeping. Please tick where appropriate. Strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5).

Statement	1	2	3	4	5
39. The number of entrepreneurs in beekeeping has increased over the years.					
40. Honey production in the county has increased over the years.					
41. Entrepreneurial approach to beekeeping has provided a steady income for your family.					
42. More opportunities have emerged in beekeeping over the years.					

Thank you for your cooperation.