

**A FRAMEWORK FOR THE DEVELOPMENT OF ENTREPRENEURSHIP WITHIN THE  
SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE**

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## ABSTRACT

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The study reported in this thesis uses the Zimbabwean context to address two pertinent questions that mark discussions on what drives school leavers to become entrepreneurial and start-up businesses. The first borders on the potential for entrepreneurship to address social development challenges in Zimbabwe and the second interrogates the possibilities that the introduction of entrepreneurship education within the secondary school curriculum can offer in addressing the same challenges.

Positivism and interpretivism philosophies were used in this study to come up with the research pragmatism philosophy underpinned by theories from the various fields of economics, psychological, sociological, opportunity and human capital to provide a basis for the development of entrepreneurship framework for the secondary education system in Zimbabwe. This study is guided mainly by three research questions (RQ1–RQ3), which are each informed by three models, namely the Competency-Based Model (CBM) for research question one, the Action-Based Model (ABM) for research question two, and the Entrepreneurial Effectiveness Model (EEM) by Rae (2011) for research question three.

A review of related literature brought evidence on the applicability of entrepreneurship education in teacher training, teaching methodology and outcomes of entrepreneurship education. Entrepreneurship skills needed for self-employment were identified in related literature. The study applied a concurrent mixed methods strategy which involved a separate but concurrent use of quantitative and qualitative methods of data collection and analysis. The set of results were triangulated. The qualitative methodology involved semi-structured questions, whilst the quantitative methodology utilised a survey.

The qualitative population comprised 10 participants consisting of five Principals of Teachers Colleges from the Ministry of Higher and Tertiary Education, Innovation, Science and Technology and five Provincial Education Directors in the Ministry of Primary and Secondary Education in Zimbabwe. The quantitative population comprised 500 registered CZI members across Zimbabwe. The study used the Krejcie and Morgan (1970) method in determining the sample size needed for the quantitative data. The sample for the qualitative data collection

was purposefully drawn from Principals of Teachers' Colleges in Zimbabwe and Provincial Education Directors of the 10 Provinces in Zimbabwe. Simple random sampling was used for the quantitative study. Semi-structured interviews generated data for the qualitative inquiry whilst questionnaires collected data for the quantitative inquiry.

The study used systematic grounded theory principles which involved open, axial and selective coding for data analysis on qualitative data while descriptive statistics using SPSS 27.0 presented and analysed quantitative data. Trustworthiness validated qualitative methodology used in the study while validity and reliability validated quantitative method.

The results lead to the conclusion that for effective entrepreneurship development to occur in Zimbabwe, the government must formulate a policy framework on entrepreneurship development, leveraging entrepreneurship education throughout as a national strategy. The contribution of entrepreneurship education both in the teaching training and student learning is critical for Zimbabwe and intended to create entrepreneurially minded students who both possess the entrepreneurial knowledge and skills to start-up businesses after formal employment. The results further indicated a need to realign teacher training and teaching methodologies to suit the demands. Moreover, the mismatch gap that was discovered between industry and the education sector needed to be addressed to foster more cooperation and collaboration for the country to economically benefit.

The study concludes that the education sector in Zimbabwe particularly primary and secondary education needs to embrace entrepreneurship and develop concepts through entrepreneurship education using this study's entrepreneurship framework. The study proposes a framework for the development of entrepreneurship within the secondary school education system in Zimbabwe.

## DEDICATION

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I dedicate this study to my late parents, Emilio Mtakati and Diana Kondo, for whom I have everything to thank for.

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This study would not have been possible without the support of so many people and so many institutions.

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Lastly, my Board Chairman Mr. John Matorofa I appreciate the support you provided me with as I pursued this degree.

## DECLARATION

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I Tirivangani Jona Kondo declare that the research reported in this thesis titled: *A framework for the development of entrepreneurship within the secondary school education system in Zimbabwe*, except where otherwise indicated, is my original work. The thesis or parts of it have not beforehand been submitted for any degree or examination at the University of Free State or any other higher educational institution. The thesis does not contain other people's work unless specifically acknowledged. Where other people's work has been used, their words have been paraphrased, or where exact words have been used, they are placed in citation marks.

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## LIST OF ACRONYMS

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<b>ABM</b>	ACTION BASED MODEL
<b>BIS</b>	BUSINESS INNOVATION AND SKILLS
<b>CBM</b>	COMPETENCY BASED MODEL
<b>CEDEFOP</b>	EUROPEAN CENTRE FOR THE DEVELOPMENT OF VOCATIONAL TRAINING
<b>CZI</b>	CONFEDERATION OF ZIMBABWE INDUSTRIES
<b>EI</b>	ENTREPRENEURIAL INTENTION
<b>EU</b>	EUROPEAN UNION
<b>EEA</b>	EUROPEAN ECONOMIC AREA
<b>EEM</b>	ENTREPRENEURIAL EFFECTIVE MODEL
<b>EE</b>	ENTREPRENEURSHIP EDUCATION
<b>GED</b>	GLOBAL ENTREPRENEURSHIP AND DEVELOPMENT INDEX
<b>GEM</b>	GLOBAL ENTREPRENEURSHIP MONITOR
<b>ILO</b>	INTERNATIONAL LABOUR ORGANISATION
<b>IMF</b>	INTERNATIONAL MONETARY FUND
<b>KAB</b>	KNOW ABOUT BUSINESS
<b>TEA</b>	TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY
<b>PD</b>	PROFESSIONAL DEVELOPMENT
<b>OECD</b>	ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT
<b>UNESCO</b>	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION.
<b>UNEVOC</b>	INTERNATIONAL PROJECT ON TECHNICAL AND VOCATIONAL EDUCATION
<b>UNICEF</b>	UNITED NATIONS INTERNATIONAL CHILDREN'S EMERGENCY FUND
<b>YEDAC</b>	YOUTH ENTREPRENEURSHIP DEVELOPING IN ACTION
<b>UNCTAD</b>	UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
<b>UN</b>	UNITED NATIONS
<b>UNIDO</b>	UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION

<b>UNDP</b>	UNITED NATIONS DEVELOPMENT PROGRAM
<b>US</b>	UNITED STATES
<b>QAA</b>	QUALITY ASSUARANCE AGENCY FOR HIGHER EDUCATION
<b>WEF</b>	WORLD ECONOMIC FORUM
<b>ZIMSTAT</b>	ZIMBABWE NATIONAL STATISTICS AGENCY

# CHAPTER ONE: RESEARCH OVERVIEW

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## 1.1 INTRODUCTION

The role that entrepreneurship can play in the achievement of economic and social development objectives, is widely recognised. As Valerio, Parton, and Robb (2014) put it, entrepreneurship includes formal and informal economic activities that manifest in an economy to create wealth. Entrepreneurship creates wealth in various ways that generate income and employment for vulnerable populations (Valerio et al., 2014). That entrepreneurial knowledge and skills can be learnt, suggests, as this study and other researchers do, that educational institutions and training programmes are integral aspects in entrepreneurship education.

## 1.2 BACKGROUND OF THE STUDY

Although the focus of this study is primarily on Zimbabwe, however, the interrogation of the area of entrepreneurship education could not be complete without further looking at how other continents such as the United States, Europe, Asia and Africa have perceived the entrepreneurship education concept, especially in the secondary school education system. The background of this study outlines best practices and approaches to entrepreneurship education within the secondary education system in the three continents, United States, Europe and Africa to provide an understanding of how entrepreneurship education is structured within the secondary school context. As a nation, Zimbabwe does not exist in isolation, the best practices and approaches provide greater prospects for the adoption of entrepreneurship education within the secondary school education sector in Zimbabwe.

The outcome of entrepreneurship education in high schools in the United States (US) is not viewed solely as how to start a business, but rather as a way that strives to teach students the entrepreneurial mindset, or how to think like an entrepreneur (Jones & Colwill, 2013). Principles such as problem-solving, risk assessment, creativity, opportunity recognition and customer discovery are commonly taught in entrepreneurship courses in middle and high schools in the US (Strobl, 2020). Additionally, students learn about classic business disciplines



such as finance, leadership and marketing through the lens of an entrepreneur (Ndofirepi, 2020).

Steve Kemp, a middle school teacher in Houston, Texas, is quoted in the *Entrepreneur* as saying the following:

Students may not have their big idea today, but they could in 5, 10, or 20 years. At that point, these individuals will be armed with a base knowledge of entrepreneurship that will enable them to launch what could be the next success story. Our regional entrepreneurial education efforts have in general, given students the opportunity to see that there is an increasingly progressive business community that supports entrepreneurs. By investing in our high school students now, we are setting up the next generation of entrepreneurs for success (Spencer, 2020:16).

One of the solutions to the global economic crisis in Europe which began in 2007 was entrepreneurship education which was considered vital in employment creation, economic reform and social cohesion (United Nations, 2008). Accordingly, an Entrepreneurship Action Plan 2020 was created to promote an entrepreneurial culture in European Union (EU) countries by changing the public attitudes towards entrepreneurs, removing structural hinderances, and ensuring that entrepreneurial skills were part of the education and training programmes (European Union, 2014c). Basic education schools in Belgium, Denmark, Sweden, Estonia, the Netherlands and Lithuania have gone on to include entrepreneurship in their curriculums as one of the strategic objectives of the education system (European Commission, 2011b).

Owing to the impact of entrepreneurship education as with the European nations on economic development, the Asia Pacific region also increasingly focused its attention on entrepreneurship education. Here, most people aged between 18-64 years increasingly got involved in entrepreneurial employee activity (see the Global Entrepreneurship Monitor (GEM) global reports 2014-2017). Certain countries, namely Australia, China, India, and Indonesia, increased their entrepreneurial employee activity (EEA) from 8.2%, 0.5%, 0.2% and

0.5% to 9.0%, 1.2%, 2.5% and 0.7%, respectively Baldegger, Alberton, Gaudart, Huber & Wild (2018). The significance of these figures increasing goes to show higher employee entrepreneurial activities such as developing new goods or services or setting up new business units a result attributed due to the impact of entrepreneurship education within most people aged between 18-64 years. A development that Zimbabwe could benefit from if entrepreneurship education is incorporated within the secondary school education sector.

Kaijage and Wheeler (2013) undertook a detailed study for entrepreneurship education in three East African countries, Kenya, Tanzania, South Sudan and concluded that Kenya has the best developed High Education Information infrastructure to support entrepreneurship education in their formal educational systems, with Tanzania in an intermediate position and South Sudan at third position with poor capacity to deliver entrepreneurship education by their higher education institutes.

While some countries in Africa experienced positive economic growth between 2015 and 2018, the African outlook report in 2019 outlined that the development did not translate in the improvement in the quality of life and material conditions of the Africans (African Outlook, 2018a, ILO, 2017c). Al-Awlaqi et al. (2018) and Blattman, Fiala & Martinez (2014) concur that because entrepreneurship education can improve the fortunes and material conditions of people due to job opportunities and eventual contribution to the gross domestic product, the development of entrepreneurship education in Africa should be seriously considered.

Due to low education throughput in Africa which sees some youths dropping out of secondary school without requisite knowledge and skills for employment (Garcia & Fares, 2008), unemployment remains high (DeJaeghere & Baxter, 2014; Nafukho & Muyia, 2010). Education thus needs to be refocused towards entrepreneurship education to develop skills and promote self-reliance and opportunity for income-generation by the youths (Mwasalwiba, 2010). In line with its poverty reduction strategy, the Sierra Leone government implemented entrepreneurship education programmes across the country as a way to create an environment for youth development empowerment (World Bank, 2014). de Wit and de

Kok (2014) provide entrepreneurship education as an element that facilitates the creation of jobs, employment, empowers the vulnerable of society and promotes economic growth.

Egypt, Jordan, Oman and Tunisia signed an agreement with the UNESCO and StratREAL Foundation of the United Kingdom in 2009 aimed at supporting the integration of entrepreneurship education in the educational policies, systems, programmes and practices of the Arab States (Munther et al., 2010). The research indicated that Tunisia has supportive policies for entrepreneurship education and training distinctive from other countries in the region as it focuses on the promotion of entrepreneurial activities and the important skills in all elements of its education system. Similarly, to stimulate a positive attitude towards entrepreneurship among the youth, the Angolan government developed an entrepreneurship education curriculum in a secondary school in partnership with UNIDO, UNDP and other stakeholders. The project addressed human resource development as an entrepreneurial foundation for bottom-up growth and private sector development (United Nations Development Programme, 2020).

Udu and Amadi (2013) conducted a survey in Nigeria that sought to find ways of integrating basic entrepreneurship education into primary school curriculum. The results of the survey indicated that the introduction of entrepreneurship education in the primary school curriculum was a noble idea as it created a foundation for future entrepreneurial development within students.

It is clear from the preceding discussions that entrepreneurship education has direct links with the promotion of entrepreneurial activity with entrepreneurship education increasingly being recognized as an economic activity with the potential to alter the economic outlook of many nations (ILO, 2020; Filmer & Fox, 2014).

### **1.3 BACKGROUND TO THE CASE OF THE STUDY – ZIMBABWE**

The adoption of practical subjects in the secondary school educational curriculum by the Zimbabwean government whose specific aim was to produce graduates who would start-up small businesses thereby creating jobs after leaving formal education as recommended by

the 1999 Nziramasanga Commission was incomplete. According to Nani (2016) learners in Zimbabwe who go through the practical subjects are not taken through the process of entrepreneurship and small business management rendering the entrepreneurial process futile. Nani (2016) points out that Zimbabwean high schools and tertiary education institutions perennially churn out thousands of school-leavers and graduates who face serious challenges in securing decent formal employment opportunities.

The increased government expenditure and the subsequent decline in export revenue, especially from the agricultural sector, coupled with excessive money creation led to high inflation and a national budget deficit have caused standards of living to decline with over seven million people in the country being said to be food insecure, also because of the ongoing El Nino induced drought (United Nations, 2019). This has resulted in job losses as companies failed to sustain themselves leaving many people including youths who would have completed their formal education to be unemployed.

The formal unemployment rate is estimated to be above 80% in Zimbabwe (Bhebhe & Mahapa, 2014). While tens of thousands of graduates annually are churned by Zimbabwean universities, this notable picture is overshadowed by “vendor graduates”, which has become a continuing feature of the economic meltdown in Zimbabwe (Rambe, Ndofirepi, & Dzansi, 2015). Murinda (2014) insists that many of these graduates are engaged in menial jobs predominantly located in the informal sector.

Although many youths in Zimbabwe are interested in starting their own business after completing formal education, the lack of experience and entrepreneurial skills undermines them (African Economic Outlook, 2020c). Entrepreneurship is neither taught at the foundational nor the secondary school level in Zimbabwe. learners are taught practical subjects. There is a general lack of well-coordinated efforts among key role players within the education sector in developing and growing the idea of entrepreneurship education within secondary schools in Zimbabwe (Nani, 2016; Ndofirei & Rambe, 2017).

The existing secondary school curriculum in Zimbabwe does not provide the entrepreneurship education that promotes requisite knowledge and skills to venture into

business (Coltart, 2008), even for those students in the business stream (Nani, 2016). It is within the context of this study that an entrepreneurship education framework in the secondary school education system is essential in improving the success of entrepreneurs amongst the Zimbabwean youth.

#### **1.4 PROBLEM STATEMENT**

The continued teaching of practical subjects within the newly formulated Zimbabwean school education curriculum should not be an end, but a means to an end. Secondary school students should not only be equipped with practical skills but should also be exposed to entrepreneurship education from an elementary stage and not only at higher levels of education.

Whilst many changes were happening on the economic front, high unemployment rates (Bhebhe, Sulochana, Muranda, & Sifile, 2015), the decline in export revenue (United Nations, 2019), graduates are engaged in menial jobs (Murinda, 2014), the Government of Zimbabwe has not introduced entrepreneurship education in the secondary school education system where students are mentored on how to set up and run businesses from an early age. Even when the curriculum review was carried out, it was chaotic and rushed. It failed to acknowledge that the current economic situation in Zimbabwe was failing to create a competitive edge among students who wanted to make it in a country with only a handful of opportunities on offer (Chivasa, 2014; Ward, 2015).

Despite the gains Zimbabwe has made since independence in 1980 of raising the standards of education and literacy to as much as 95% (Zimbabwe National Statistics Agency, 2014), few, if any, of the students that come out of the secondary school system, have gone on to create a business without going through additional post-secondary formal or informal training. This is because the secondary education system in Zimbabwe does not offer entrepreneurship education (Nani, 2016). Therefore, post-secondary school education creates students who expect to be employed immediately, rather than creating their own businesses and employing other people (Asare, 2014).

As a consequence, though with some experience from the practical subjects the school curriculum will have offered them, students leaving formal education have very little, if any, entrepreneurial skills and can hardly start-up any form of business that will help alleviate their situation within the sphere of rising unemployment in Zimbabwe (Chidoko, Makuyana, Matungamire & Bemani, 2011).

All levels of the education system expressed the need to review and revise the national curricula to include creative thinking, innovation and communication skills (Chidoko et al., 2011). Maritz & Brown (2013) and Pouratashi (2014) concur with Chidoko et al., (2011) and strongly conceive that entrepreneurship education creates employment, stimulate economic growth, leverage social well-being and is often applauded as a fundamental solution to the quadruple challenges of high youth unemployment, poverty, inequality and social deprivation.

In light of the foregoing, entrepreneurial education among the youth both in or out of school is key for youth economic empowerment and economic advancement in Zimbabwe. Chen et al., (2015) and Chu et al., (2016) propose that entrepreneurship education will prompt the youth to self-employ instead of seeking waged employment. Masunungure, & Koga (2013) envisages entrepreneurship development among youths as a contributor to poverty reduction by creating self-employment opportunities for them.

The problem that this study addresses can thus be summed up as follows:

The lack thereof of purposive entrepreneurship education in the Zimbabwean secondary education system and its capacity to predict educational outcomes cannot continually be ignored at the expense of high unemployment levels, particularly in youths. It is usually in such deeply fractured, disorganized economic scenarios that the impact of entrepreneurship education brings about entrepreneurs who employ their tolerance to generate economic opportunities.

## **1.5 RESEARCH AIM**

This study aims to develop a framework for entrepreneurship education within the secondary school system in Zimbabwe. To achieve this aim, the study sets out to accomplish the following objectives:

## **1.6 RESEARCH OBJECTIVES**

To accomplish the above aim, the study will be guided by the following objectives:

1. To establish the status of entrepreneurship training in the Zimbabwean secondary school education system vis-à-vis the international community.
2. To examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe, drawing from the experiences of other countries.
3. To determine the entrepreneurial skills required for the Zimbabwe secondary school curriculum so that the students are able to enter self-employment.

## **1.7 RESEARCH QUESTIONS**

Together, the problem and the objectives outlined above attempt to find answers to the following research questions:

1. To what extent has entrepreneurship training been incorporated in the secondary school education system in Zimbabwe vis-à-vis the international community?
2. Can entrepreneurship training be successfully incorporated into the secondary school education system in Zimbabwe?
3. What are the entrepreneurship skills that are needed in the Zimbabwean secondary school curriculum to enable students to enter self-employment?

## **1.8 RATIONALE OF RESEARCH**

The decision to undertake this study was influenced by three major reasons. Firstly, the decision was triggered by the current need in Zimbabwe to scale up entrepreneurial activity

and accelerate the development of entrepreneurship education within the secondary school education system, which can eventually contribute to the generation of job opportunities and the eradication of unemployment in the country (Lackeus, 2015; Mwasalwiba, 2010; Neck & Greene, 2014; Steenekamp, 2013).

Secondly, the study was prompted by the ongoing debate globally on the importance of entrepreneurship education as an engine of growth for the economies of developing countries, in particular; hence, the need to incorporate entrepreneurship education within the secondary education system (Blenker et al., 2011; Chimucheka, 2012; Iakovleva, Kolvereid & Stephan, 2011).

Thirdly, the study was prompted by the lack of well-coordinated efforts among key role players within the education sector in developing and growing the idea of entrepreneurship education within secondary schools (Nani, 2016, Ndofirei & Rambe, 2017)

If successfully carried out, the results from the study will not only benefit the Ministry of Primary and Secondary Education, Ministry of Higher and Tertiary Education, Innovation, Science and Technology Department and administrators of schools in terms of policy decisions but will be greatly beneficial to industry and commerce who are major players in employment and skill requirements.

Furthermore, students will have an opportunity to decide on their career paths as entrepreneurs or employees. It will also inform the curriculum development unit to suggest relevant curriculum processes that will be acceptable to the subsistence economy, as well as inform teacher training colleges on the training needs that are required in this century.

## **1.9 SCOPE OF THE RESEARCH**

The study focuses on the Zimbabwean secondary school education system and entrepreneurship development. The study is targeted at the Confederation of Zimbabwe Industries' registered members, Principals of Teachers' Colleges and Provincial Education



Directors in Zimbabwe. The participants represented different levels of the education system and the information derived from the literature sources provided a variety of answers. This not only enriched the findings but also provided complementary perspectives on the topic under investigation, utilising a process of triangulation.

CZI is an independent, self-financed and legally constituted apex organisation in Zimbabwe, that represents and serves the interest of members in a wide array of matters affecting their viability and competitiveness. CZI has four regional chamber offices in Mashonaland, Matabeleland, Midlands and Manicaland which serve as points for the industry with both the local and international business communities.

Principals of Teachers Colleges oversee the teachers' colleges and foresee the implementation of the Ministry of Higher and Tertiary Education, Science and Technology Development 5.0 policies which are primarily aimed at developing Zimbabwe into an upper middle-income economy by 2030. The principal of Teachers colleges acts as transformative leaders' tertiary education, teaching curriculum, science and technical/ vocational subjects. Their role is to align curricula to basic education using competency-based education in training and TVET that produces high-end skills in the hope to drive the industrialisation and modernisation agenda within the Ministry.

Provincial Education Directors serve within the Ministry of Primary and Secondary Education are stationed in each of the ten provinces in Zimbabwe. Their sole responsibility is to ensure that the Ministry of Primary and Secondary Education policies are implemented within their school districts.

As mentioned, the focus of the study is to develop a framework for entrepreneurship education within the secondary school education system in Zimbabwe.

## **1.10 RESEARCH CONTRIBUTION**

This hopes to variously contribute to the policy and practice of the Zimbabwean secondary school education system and entrepreneurship development.

## **For the Ministry of Primary and Secondary Education**

- By seeking to understand the dynamics around entrepreneurship within the Zimbabwean secondary school education system, the study hopes to add new insights on entrepreneurship development and on how these two interrelate. Thus, it is hoped that the generated knowledge on the Zimbabwean secondary school education system will inform both policy and practice, which can then be applied. For example, from the policy point of view, the study will help key role players such as the government, the donor community and the private sector to understand how to best develop and institute the necessary policy interventions and programmes to promote entrepreneurship development within the Zimbabwean secondary school education system.

## **For Industry and Commerce**

- The study will shed light on how industry's expectations in regard to entrepreneurship skills they require students to have after completing formal education. The views from the industry will inform educators on formulating policies that will curb unemployment gaps.

## **For the Research Field**

- From a research methodology perspective, the use of the mixed methods design in the study of developing entrepreneurship within the Zimbabwean secondary school education system will provide insights on how to best combine the qualitative and quantitative research designs in a single study. Thus, a more holistic picture will be gained of the characteristics, constraints and drivers of entrepreneurship development within the Zimbabwean secondary school education system.
- The development of a framework for entrepreneurship in the secondary education system in Zimbabwe will shed light on how to best scale-up entrepreneurial activity while at the same time accelerating the development of entrepreneurship. This blueprint will not only benefit Zimbabwe but will have the potential to be replicated elsewhere to benefit other countries.

## **The Ministry of Higher and Tertiary Education**

- The research will inform colleges that train and equip teachers to teach students who will go out into the world and create certainty under uncertain conditions on which pedagogies to use, what environmental settings are needed with what kind of a teacher, and which objectives to achieve.

### **1.11 RESEARCH PARADIGM AND METHODOLOGY**

This section outlines the philosophy underpinning the selected research design and strategy. It identifies the research population; and describes the data collection, presentation, and analysis procedures deployed for this study. In Chapter 6, the research methods will be described in more detail.

Generally, research methodology encompasses all the procedures followed in the execution of a study (Leavy, 2017). It is based on the philosophical underpinning that influences approaches to knowledge creation through research (Creswell & Plano Clark, 2011). This study used a pragmatism research philosophy. Leavy (2017) and Maarouf (2019) concur that pragmatism is a philosophical proposition that researchers must be pragmatic and deploy methods that work best on the ground. Biddle and Schafft (2015) view pragmatism as a coherent approach that integrates “ontological, epistemological and axiological stances in a way that combines both quantitative and qualitative paradigms”. Mitchell (2018) states that pragmatism favours the mixed-method research approach whose assumptions provide the essence for mixing methods.

### **1.12 RESEARCH STRATEGY**

Different research strategies are influenced by different research philosophies. Common strategies include among others experiment, survey, archival research, case study, ethnography, participatory action research, grounded theory and narrative inquiry (Saunders et al., 2016:178). This study used a mixed-method research approach to collect and analyse data.

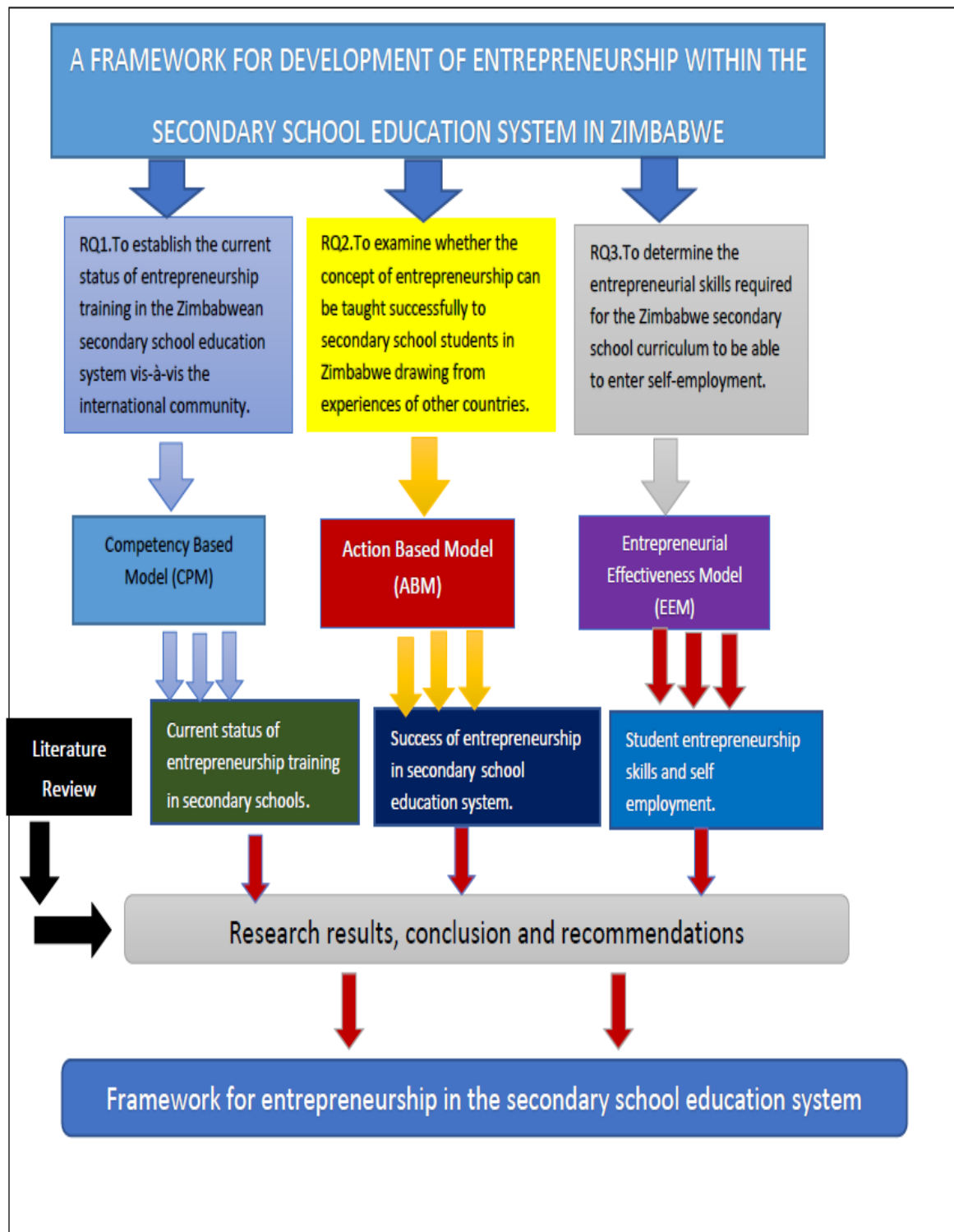
A research strategy is a plan on how to execute a study to achieve an intended goal (Saunders et al., 2016:177). The strategy is not arbitrarily selected as it is determined by philosophy, which in turn influences the consequent methods appropriate for the collection and analysis of data yielded through the strategy (Denzin & Lincoln, 2011). Different strategies used influence researchers' choices on the appropriate approaches to research which range between qualitative and quantitative (Saunders et al., 2016:178). The mixed-methods approach allows a researcher to use both inductive and deductive reasoning (Saunders et al., 2016:181). This employed a concurrent mixed-method approach by using both qualitative and quantitative approaches.

### **1.13 RESEARCH DESIGN**

This study used a concurrent mixed methods strategy. This involved the separate but concurrent use of quantitative and qualitative methods of data collection and analysis (Saunders, 2016:170). The set of results were triangulated to provide a broader response than a single method (Saunders, 2016:170).

The research design is the preliminary plan for conducting this research. It includes an outline of what the research's operational implications are, to the final analysis of the data. The research design also helps the researcher in the planning of the fieldwork by posing crucial choices in methodology. Figure 1.1 shows the conceptual framework.

**Figure 1.1: Conceptual Framework**



This study is informed by three models, namely the Competency-Based Model (CBM), the Action-Based Model (ABM), and the Entrepreneurial Effectiveness Model (EEM) by Rae (2012). Figure 1.1 above provides a graphical presentation of the conceptual framework.

This study is guided mainly by three research questions (RQ1–RQ3), which are each informed by three models, namely the Competency-Based Model (CBM) for research question one, the Action-Based Model (ABM) for research question two, and the Entrepreneurial Effectiveness Model (EEM) by Rae (2011) for research question three. The CBM is “a combination of knowledge, skills, abilities formed in the process of learning of a particular discipline, as well as the ability to perform any activity based on the acquired knowledge, skills, abilities” (Asimov & Shchukin, 2009:16). The main goal of entrepreneurial education is entrepreneurial competencies development (Lackéus, 2016). According to Wu (2009), entrepreneurial competencies comprise higher-level characteristics such as personality traits, skills and knowledge, which can be thought of “as the total ability of an entrepreneur to perform a role successfully”. For Acs et al. (2016), entrepreneurial competency refers to,

the total of the entrepreneur's requisite attributes for successful and sustainable entrepreneurship, including attitudes, values, beliefs, knowledge, skills, abilities, personality, wisdom, expertise (social, technical, managerial), mindset and behavioural tendencies.

The CBM provides a basis for research question 1, which primarily deals with entrepreneurship education with a particular focus on teacher professional development, pedagogical entrepreneurship in teacher education, and teaching methods to enhance students’ creativity and innovation towards self-employment.

The ABM informs research question 2, which examines the success of entrepreneurship education in secondary schools. Lackeus (2015) states that the ABM offers four basic dimensions in the success of any designed programme critical to every educator, regardless of educational level. Redecker, Leis, Leendertse, Punie, Gijsbers, Kirschner, Stoyanov & Hoogveldet (2011) suggest that for entrepreneurship to succeed, entrepreneurial education must adhere to four basic principles. It needs to:

1. be based on practical actions by learners where they work in teams creating value for others.
2. allow for creativity where learners can try out their ideas, apply their acquired knowledge, and find new solutions.
3. be connected to the environment outside the school/university, interacting with and learning from society's cultures, markets and professional actors, and also
4. relate to attitudinal aspects such as belief in own ability, ambiguity tolerance, and risk of failure.

Together, the above four are key ingredients useful for trainers to develop new educational content, processes, and forms of evaluation (Redecker et al. 2011)

Research question 3 on entrepreneurship skills needed to enter self-employment addresses how the school will develop entrepreneurship skills usually after school is informed by the EEM, proposed by Rae (2011), which considers effectiveness as the key outcome. Allen, Levels & Van Der Velden (2013) describe the EEM as having meaning for developing entrepreneurial skills by combining mindset, capability and effectiveness. Agbonlahor (2016) opines that the EEM when used in developing entrepreneurship skills within the education system, can assist learners to creatively identify new frontiers that enable them to be job-creators and not self-reliant.

The study applied a concurrent mixed methods strategy which involved the separate but concurrent use of quantitative and qualitative methods of data collection and analysis. The set of results were triangulated. The qualitative methodology involved semi-structured questionnaires, whilst the quantitative methodology utilised a survey.

## **1.14 RESEARCH LAYOUT**

The thesis comprises nine chapters, arranged as follows:

**CHAPTER ONE: Research Overview** Introduces the study by describing its background. It lays out the research aim, questions and objectives. The chapter briefly describes the research methodology as well as its potential contribution, which is the envisaged entrepreneurship framework.

**CHAPTER TWO: Conceptualising Entrepreneurship and Economic Development** synthesises the literature on entrepreneurship development. It provides a global perspective on entrepreneurship development to lay a foundation to conceptualise ways to adopt and implement entrepreneurship in Zimbabwe.

**CHAPTER THREE – FIVE: Literature Review Chapters - based on the three research objectives of the study.**

**Chapter Three: Current Status of Entrepreneurship Training in Secondary Schools- Research Objective 1** discusses previous empirical studies on entrepreneurship education with a particular focus on teacher professional development, pedagogical entrepreneurship in teacher education, and teaching methods to enhance students' creativity and innovation towards self-employment. These three aspects are pertinent in addressing the first research question.

**CHAPTER FOUR: Success of Entrepreneurship in Secondary School Education Systems: Research Objective 2** discusses previous empirical studies on the success of entrepreneurship in secondary school education systems. It examines six main concepts aligned to the second research question highlighted in Chapter 1, namely entrepreneurship education – whether it can be taught or not, career readiness of students, skills mismatch between the industry and the education sector, policies on teaching and learning entrepreneurship, and factors that support and inhibit the integration of entrepreneurship.

**CHAPTER FIVE: Student Entrepreneurship Skills and Self Employment: Research Objective 3** discusses previous empirical studies on entrepreneurship skills needed to enter self-employment. It examines four main concepts aligned to the third research questions,



highlighted in Chapter 1, namely skills for successful entrepreneurship, acquisition of entrepreneurship skills, self-employment, and entrepreneurship skills for self-employment.

**CHAPTER SIX: Research Paradigm and Methodology** describes how the study was executed. The chapter identifies the philosophy underpinning the research and the concomitant approach and design. The chapter describes in detail the qualitative and quantitative components of this mixed-methods study. It also describes the ethical considerations that were observed during the study.

**CHAPTER SEVEN: Qualitative Data Presentation and Analysis** presents and discusses findings yielded through the qualitative component of the study. The data addressing the first and second objectives of the study.

**CHAPTER EIGHT: Quantitative Data Presentation and Analysis** presents and analyses results from the quantitative component of the study to address the third research objective. The results are triangulated with the qualitative findings.

**CHAPTER NINE: Conclusion** concludes the thesis. The proposed framework drawn from the conclusions is presented and explained. Research limitations and areas for further research are identified.

## **1.15 CONCLUSION**

The lack of purposive entrepreneurship education in the Zimbabwean education system accounts for more youths to depend on job opportunities that are not available thereby furthering unemployment challenges in the country. This thesis is based on a concurrent mixed methods research that set out to a) establish the status of entrepreneurship education in the Zimbabwean secondary school education system vis-à-vis the international community, b) examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe, and c) determine the entrepreneurial skills

required for the Zimbabwe secondary school curriculum so that the students are able to enter self-employment. The aim is to develop a framework for entrepreneurship within the secondary school system in Zimbabwe. The next chapter synthesises conceptual literature on entrepreneurship development to provide a theoretical perspective. The chapter forms the basis for a foundation to think of ways to effectively develop entrepreneurship in Zimbabwe.

## **CHAPTER TWO: ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT**

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### **2.1 INTRODUCTION**

The chapter begins by examining modern economic, psychological, sociological, human capital and opportunity-based entrepreneurship theories with a specific view to provide meaning, resolve complexities and formulate an understanding of the concept of entrepreneurship, entrepreneurship education and the entrepreneur that will guide the study. Entrepreneurship education (EE) is premised to facilitate the transfer of knowledge, attitudes, skills and attitudes associated with new business startups (Pruett, 2012; Maritz & Brown, 2013; Pouratashi, 2014). The interest thereof in this chapter is fuelled by the need to understand the theories that drive entrepreneurship education which eventually lays the foundation of the study. The next section provides an overview of entrepreneurship theories.

### **2.2 AN OVERVIEW OF ENTREPRENEURSHIP THEORIES**

This section focuses on the literature review concerning modern economic, psychological, sociological, human capital and opportunity-based entrepreneurship theories.

#### **2.2.1 ECONOMIC THEORIES OF ENTREPRENEURSHIP**

Richard Cantillon is widely recognised as the progenitor of the ideas that subsequent economists explored the role of the entrepreneur in economic theory (Murphy, Hood & Wu, 2019). Cantillon in the 18th century recognised that the demand and supply discrepancies in the market economy created opportunities for profiteering by those involved in buying and he called those people who took advantage of the unrealised profit opportunities “entrepreneurs” (Landstrom, 2005:37 cited in Rocha, 2012).

According to Say (1803:70 cited in Landstrom, 2005:47), “The entrepreneur in the economic theory plays a central coordinating role both in production and distribution”. The managerial

role of the entrepreneur is a prominent position in the entire system of production and consumption (Rocha, 2012). In the words of Cantillon (1755:203), the entrepreneur “extends the entrepreneurial function”. Consequently, in today’s world, the same entrepreneurship theory propounded by Cantillon was further expanded by Parisamvad (2015) who denoted that the concept behind entrepreneurship theory is not just a venture creation process; its essence goes beyond contemporary times with maturity and serves as an agent of change. It is universal and is reflected in all major dimensions of civilization viz. social, political, and economic across the globe.

In other words, within the economic theory, entrepreneurs today must choose and manage entrepreneurial careers (Mariotti & Glackin, 2010), act entrepreneurially (Shepherd & Patzelt, 2011) by being adaptable to business circumstances given their capacity of resilience to failure. These entrepreneurship competencies are facilitated through entrepreneurship education programs as contended by Linan, Rodríguez-Cohard & Rueda-Cantuche (2011). Within the same vein, Ndofirei and Rambe (2017:194) ascertain that,

“EE encapsulates the inculcation of new ventures creation of mindsets, values and attitudes. The assumption is that imparting these skills will not only lead to their acculturation in individuals but rather their ultimate manifestation and transfer to other contexts (i.e., non-academic, professional contexts)”.

Zahra, Gedajlovic, Neubaum & Shulman (2008:10) suggest that within an enterprise, the entrepreneur has a key position, of being a coordinator, leader and manager. Aeeni et al., (2018) provide further propulsion to Zahra et al., (2008) assertions and state that a successful entrepreneur should possess many qualities, namely creativity, judgment, perseverance, and a knowledge of the world, as well as of business. This preceding assumption has little resonance with the Zimbabwean secondary school education system, where programs that develop students to think and possess such entrepreneurial characteristics are not enshrined within the curriculum (Ndofirei, 2016).

Rambe & Ndofirei (2016) believe that the art of entrepreneurship is sophisticated and technical. This raises awareness in the Zimbabwean context particularly in the education

sector that the teaching of practical subjects alone might not necessarily enable students to possess the mindsets and skill sets necessary to the specific context of new venture creation if they are to make any meaningful contribution to the Zimbabwean economy.

In the economic theory of entrepreneurship, the creation of an innovative entrepreneur is the prime endogenous cause of the economic development of any nation (Schumpeter, 1934:75 cited in Landstrom, 2005:39). In the same vein, Smith & Chimucheka (2014) further add that the supply of commodities and, at the same time (as a by-product), the provision of innovations and progress” is thought of as the entrepreneur’s task. Sautet (2013) maintains that innovation, opportunity identification and leadership are the entrepreneur’s key tasks. Extant literature shows that EE has a positive impact on the quality and quantity of new and existing entrepreneurs (Yunus & Weber, 2011) even though this position is incongruous with the Zimbabwean scenario, where entrepreneurial “graduate vendors” are prevalent (Ndofirei & Rambe, 2017). Data analysed from the Harvard Business School indicated that learning about entrepreneurial opportunities, risk and one’s capabilities can have a positive impact on the decision to become an entrepreneur and the quality of one (Lerner & Malmendier, 2011).

In explaining the link between entrepreneurship and economic growth, with particular reference to the creation of an innovative entrepreneur, Ogbo and Nwachukwu (2012) insist that when entrepreneurs act upon profit opportunities, in a way that makes the economy of that particular nation more productive by creating more economic activities which invariably generate employment opportunities. Von Graevenitz, Harhoff & Weber (2010) contends that the effect EE has on students’ intentions to become entrepreneurs in the short-term (immediately or short after graduation) or in the long-term (later, after some time in paid employment) is high. The economic view from extant literature provides that entrepreneurship education programs in schools can influence an awareness in students of entrepreneurship as an alternative career path to paid employment (Kim, Sunha, Chang, Singh & Allen, 2015). This in turn provides the much-needed innovative, opportunity identification and creativity skillsets that are important for any student who would have completed formal education to begin running a business and eventually create employment

for others. Table 2.1 provides further details on the main concepts of the entrepreneurship theory, as viewed by economists.

**Table 2.1: Entrepreneurship Theories by Various Schools of Thought**

YEAR	AUTHOR	SCHOOL OF THOUGHT	MAIN IDEAS OF THEORY	KEY TERMS
1755	Cantillon	Early & Classical	Entrepreneurs work on uncertain wages	Uncertain wages
1771	Baudeau	Early & Classical	Invention and innovation, process knowledge and information	Innovation, knowledge, information
1770	Turgot	Early & Classical		Capitalist investment decision
1803	Say	Early & Classical	The entrepreneur plays a central coordinating role both in production and distribution	Leads in all factors of production
1881	Marshall	Early & Classical	Entrepreneur continuously seeks opportunities to minimize costs	Minimize costs
1907	Howley	Early & Classical	Enterpriser is the motivator and uncertainty bearer	Motivator, uncertainty bearer
1921	Knight	Austrian	Distinguishing between uncertainty and risk and relating them to profit and entrepreneurship	Uncertainty, risk, profit
1937	Hayek	Austrian	Focused on information and knowledge	Information Knowledge
1949	Mises	Austrian	An entrepreneur is an acting individual	Acting individual
1970	Schakle	Austrian	Entrepreneurship and Decision-making	Decision making
1975	Schultz	Austrian	Entrepreneurship is the ability to deal with disequilibrium	Deal with disequilibrium
1997	Kirzner	Austrian	Entrepreneurial discovery in the phase of disequilibrium	Disequilibrium
1968	Baumol	Mainstream	Distinguishes two prototypes of entrepreneurship	firm organizer and innovator Firm organizer, innovator
1968	Lilienstein	Mainstream	the entrepreneurial function is to make up the deficiencies or to fill the gaps	gap-filling" activity gives rise to the

				entrepreneurial function
<b>1982</b>	Carson	Mainstream	Successful entrepreneurs demonstrate good judgment in making risky innovations and are rewarded through either profits or salaries	Judgment, risky innovation & reward
<b>1928</b>	Schumpeter	Radical	Radical Innovation, creative destruction, the detached risk from entrepreneur	Innovation, detached risk
<b>1993</b>	Choi	Radical	Distinguishes decision making into perception/logical choice	Decision making, perception, logical choice
<b>1996</b>	Harper	Radical	The profit-seeking activity aimed at solving ill specified problems, structurally uncertain	Profit-seeking, solving problems, and complex situations

(Source: McElwee et al. 2011)

Economic theorists in entrepreneurship posited varied diverging views on the concept of entrepreneurship, entrepreneurship education, the entrepreneur and their impact on the economic development of a nation. The concepts emanating from the economic theory contextualize entrepreneurship, entrepreneurship education and the entrepreneur as a function that irrevocably supports economic development and paves way for a better understanding of the relationships between entrepreneurship, entrepreneurship education and the entrepreneur. The irrefutable presence of scholarly articles that are advocating for the establishment of entrepreneurship education within the education system to promote ‘entrepreneurs’ within an economy of a nation, who can manage an enterprise, identify an opportunity, innovate, create and eventually run businesses points to what the study’s aims to envisage. The next section analyses psychological theories of entrepreneurship and how they differ from the economic entrepreneurship theories to distinguish which theories guide the study.

## 2.2.2 PSYCHOLOGICAL THEORIES OF ENTREPRENEURSHIP

Researchers believe that the foundation of psychological theories of entrepreneurship is aimed at the development of an entrepreneurial mindset (Ferrero and Fioro, 2014; Haynie,

Shepherd, Mosakowski & Earley, 2010; Kouakou, Li, Akolgo, & Tchamekwen, 2019). Kouakou et al., 2019 opines that the state of mind links personal attitudes and behaviours with individual intentions so that, by extension, it could relate entrepreneurial behaviour to business start-up activities. Reed and Stoltz, (2011) acknowledge that individuals become entrepreneurs due to their state of mind which allows them to analyze the world, opportunities and possibilities that it offers.

Consistent with this postulation is the view on the relationship between entrepreneurial intention El .....” *a conscious state of mind that precedes action and directs attention toward entrepreneurial behaviours such as starting a new business and becoming an entrepreneur*” (Morian, Gorgievski, Laguna, Stephan & Zarafshani, 2012).

Attitudes, subjective norms and perceived behavioural controls are mediated by psychological functions within an individual, a psychological theory of planned behaviour (TPB) widely advocated by Ajzen (1991). Ajzen (1991) believes that entrepreneurship, like most forms of human behaviour, is assumed to be intentional inferring that it cannot be accepted as spontaneous but rather an informed piece of human endeavour (Ndofirei & Rambe, 2017). Whereas Al Jubari, Mosbar & Talib, (2018) however acknowledges that entrepreneurship is intentional, they add that the main focus of the TPB theory is on attitude towards self-employment, which they insist is the degree to which students have a favourable or unfavourable evaluation about self-employment, subjective norms as a social pressure to perform a behaviour or not and perceived behavioural control as the perceived ability, ease or difficulty of performing the entrepreneurial activity. In the case of educating students, the psychological entrepreneurship theories proposed to facilitate the development of better teaching methods in entrepreneurship education within the education sector. Dhliwayo & Van Vuuren (2007) argue that a business without entrepreneurial mindset adoption is more susceptible to fail than succeed while Kuratko, (2005) views the presence of an entrepreneurship manager in the process of creating a business that will not fail. These entrepreneurial competencies can be taught through entrepreneurship education (Daley, 2013; Lackéus, 2015; Obschonka & Stuetzer, 2017)



At the centre of Zhao, Seibert & Lumpkin (2010) conception of entrepreneurship is the idea that the personality trait plays an important role in the process of comprehending entrepreneurship but also supports that this is a role where other variables must be included. Brandstatter (2011) contends that an individual's intention to create a successful business is highly influenced by their personality. Self-efficacy, the need for achievement as well as entrepreneurial orientation are some of the personality dimensions that are associated with entrepreneurship and the development of the entrepreneur in business creation and business success (Schultz & Schultz, 2017).

Development of achievement, self-efficacy and entrepreneurial orientation is important particularly for teachers who teach entrepreneurship education to understand how they can develop students to achieve entrepreneurship success. McClelland (1966 cited in Kareem, 2015) believes that developing internal factors that instil values and motives leads students to exploit opportunities thereby promoting economic and social development. Clark's (1969) theory of economic growth which is in support of McClelland's (1966) need for achievement theory believes that when the theory is inculcated through EE practices, that emphasise standards of excellence, material warmth, self-reliance and training, a high scale of economic development could be seen in individuals. Chell (2013) concurs that proper training and education improve the performance of existing entrepreneurs. At the same time, it is necessary to create a climate (especially in educational institutions at various levels) for this particular achievement to be met. Baron & Tang (2011) suggest enabling students to grow to become individuals with a high sense of achievement which is the cornerstone of entrepreneurship education (Badi & Badi, 2012). Table 2.2 provides further details on the main concepts of the entrepreneurship theory, as viewed by psychologists.

**Table 2.2: The Psychology Journal of Entrepreneurship Theories by Various Schools of Thought**

YEAR	AUTHOR	SCHOOL OF THOUGHT	MAIN IDEAS OF THEORY	KEY TERMS
1961	McClelland	Personality Traits	Entrepreneurial pursuits represent the desired moderate risk situations, for	Moderate risk solutions High need for achievements

			individuals with a high need for achievement	
1771	Hagen		An entrepreneur is an individual, interested	Solving problems that are practical and technical and is driven by a duty to achieve
1966	Rotter	Locus of Control	Those with an internal locus of control will give heightened alertness which is essential for incidental learning (recognition of opportunities) with spontaneous learning resulting in entrepreneurial behaviour	Internal/ external locus of control, incidental learning
1977	Kets de Vries	Psychodynamic Model	Study into the psyche of the entrepreneur and conceptualize the entrepreneurial personality and a convincing explanation of how it was formed	Study Psyche of Entrepreneurial personality
1967	Greenfield and Stricken	Situational Approaches	Entrepreneurs are classified into patterns whereby they are grouped sharing similar characteristics	Classified into patterns Grouped sharing similar characteristics.
2000	Chell	Social Constructionism	Entrepreneurs are distinguished from non-entrepreneurs by their motivation for wealth creation, capital accumulation, the ability to recognize opportunities and their judgement	The motivation for wealth creation, recognize opportunities, judgement.
2001	Gaglio & Katz	Cognitive aspect	Cognitive schemata that prompt people to think in new and unusual ways	General mental ability and creativity are cognitive capacities that influence how people process information
2007	Baum		Entrepreneurship is fundamentally personal	Entrepreneur identifies viable and feasible business opportunities
2011	Baron & Tang	Cognitive aspect	Creativity (and to a lesser extent also general mental ability) also contributes to opportunity identification	Active information search moderated the positive effect of creativity on business opportunity identification and product/service innovations.

2014	Gielnik	Cognitive aspect	General mental ability and creativity) and information acquisition is needed to explain opportunity identification	Creativity has a strong effect in cases of high active information search
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Source: McElwee et al. (2011)

The different psychological views on entrepreneurship reveal that the need for achievement, self-efficacy and entrepreneurial intention lead up to the development of an entrepreneurial mindset, that if taught through EE contributes to the development of entrepreneurs within a nation. Psychological entrepreneurship theories are critical in supporting the teaching methodologies. Although not all students who are taught entrepreneurship education will eventually become entrepreneurs but the qualities that are involved within EE such as the development of an entrepreneurial mindset, self-efficacy, opportunity identification, business start-up and need for achievement will contribute immensely to their later years after formal education. The next section analyses the sociological theories of entrepreneurship which place higher emphasises on the idea that the concept behind the development of an entrepreneur is based on their social culture. Distinguishing particularly on the sociological entrepreneurship theories are discussed to provide further guidance to the study.

### 2.2.3 SOCIOLOGICAL THEORIES OF ENTREPRENEURSHIP

The field of sociology has a long tradition of highlighting how social structures – in the form of expectations, norms, interpersonal relations and institutions constrain the choices available to individuals, thereby shaping their behaviours and outcomes (Alvarez, 2005). Though these theoretical traditions have been developed to explain a wide range of economic behaviours, they also speak to those interested in understanding entrepreneurship in the sociological views (Alvarez & Barney, 2014b).

A critical concept enshrined within the sociological theory of entrepreneurship which is different from economic and psychological theories is that of the social aspects that particularly affect an entrepreneur's success. When conducting business an entrepreneur

must conform to societal expectations that include social values, customs, taboos, religious beliefs and other cultural activities (Bygrave & Zacharakis, 2011; Singh, Verma & Rao, 2016; Pawar, 2013).

Singh et al. (2016) view entrepreneurial growth as being dependent upon the ethical value system of the society concerned. Furthermore, Alvarez (2005) states that entrepreneurs are seen within this ethical value system as creators of new businesses that spur economic development. Equally important, Baranoff et al., (2012) state that an entrepreneur is a manager of scenarios who creates social value in a community in which he/she resides. The idea of an entrepreneur as a manager resonates with the economic theory that supports the view that within an enterprise, the entrepreneur has a key position, of being a coordinator, leader and manager (Zahra et al., 2008). The creation of leaders, managers and coordinators of businesses through the establishment of entrepreneurship education within schools in Zimbabwe will transform rural economies where most Zimbabweans live as more and more youths will regard self-employment as a career choice as opposed to moving to towns in search of jobs where they are not. Based on this view, the establishment of businesses within societies in which students reside through the adoption of entrepreneurship education in secondary schools can be recommended as a policy within the development of the entrepreneurship education framework that underpins the study.

Similarly, the sociological theorist describes an entrepreneur as an instrument that solves societal problems by transforming how goods and services are provided (Pawar, 2013). Hessels et al. (2011) maintain that the sociological theory proposes that the entrepreneurial qualities of an individual or a group remain ingrained within the society that the person belongs to. The unemployment issues amongst the youths in Zimbabwe is a clear thorn within the Zimbabwean economy as students complete formal education without necessarily knowing what they will end up doing afterward. If there were taught entrepreneurially to solve problems, identify opportunities within their areas of stay they may contribute towards easing the situation of unemployment

Max Weber (1930) the proponent of the theory of social change, advocated that.

“entrepreneurship is a function of religious beliefs and the impact of religion shapes the entrepreneurial culture’. He further argues that “entrepreneurial energies are exogenous factors that are obtained purely from external factors fuelled by religious aspects” (p.37)”.

Weber’s theory of social change, though important to the study, is heavily criticised by contemporary researchers (Fishbein, 1963, McGuire, 1964; Nicholls, 2010) for based on an assumption, has a distinguishing factor that provides an understanding to the present-day function of an entrepreneur which is the inducement of profit’. In other words, entrepreneurs are motivated by the prospects of making a profit from their enterprise. The importance of Weber’s theory to the study about economic development is that that at the core of entrepreneurship education is a set of objectives generated to assist students on how to exploit business opportunities and cover the extensive sequences of actions involved with entering a business or creating one. In support of this view and as a way important point to take away the study, Nieman and Nieuwenhuizen (2014:14) specifically emphasises that,

“business entry is a fundamentally different activity than managing a business and entrepreneurship education must address the equivocal nature of the business entry.

Hence, the entrepreneurship education framework for the study should have business entry as a core function of its model.

Certo & Miller, (2008) opposed Weber’s social change theory and proposed for the advancement and promotion of education, literacy and learning which he believes results in capitalism through the development of enterprises. Although McGuire (1964) proposed advancement and promotion of education, literacy and learning is a great idea that can also be adopted for the study, the teaching methodologies in Zimbabwe have to shift students’ mindsets from an over-reliance on academic results as the only source of providing a gateway to job acquisition. The view is supported by the OECD (2017) who outlines that more than half of the youth aged between 18- 30 years surveyed across all OECD countries including

Zimbabwe in the period 2012-16 reported a lack of entrepreneurship knowledge and skills. These distinctive features cannot be ignored hence the need for the study to be conducted. The OECD (2018) propose developing competencies for entrepreneurship as a way to reduce the fear of failure through raising awareness within society, as well as providing knowledge and know-how that entrepreneurship can be taken up as a career choice. Table 2.3 provides views from sociologists on sociological theories of entrepreneurship.

**Table 2.0.3: The Sociology Journal of Entrepreneurship Theories by Various Schools of Thought**

YEAR	AUTHOR	SCHOOL OF THOUGHT	MAIN IDEAS OF THEORY	KEY TERMS
1904-1906	Weber		Entrepreneurship determined by religious concepts	Religious concepts
1949	Jenks	Entrepreneurial History	Development of entrepreneurship through social roles	Social roles
1963	Hoselitz	Social Marginality	Resourceful, group solidarity, reactive due to low-status recognition or denial to access	Social, ethnic minorities
1971	Young	Social Marginality	Resourceful, group solidarity, reactive due to low-status recognition or denial to access	Group solidarity, low-status recognition
1997	Hannah and Freeman	Evolutionary Approaches	A new theory based on 'learning by doing', brought about an evolutionary approach known as Population Ecology, focused on presence, characteristics, and changes in a population of organisations in an ecological context provided by the host society	The evolutionary approach, Population Ecology, the population of organisations, ecological context, host society
1999	Thornton	Evolutionary Approaches	Defines entrepreneurship as the creation of new organisations, which occurs as a context-dependent, social and economic process	Creation of new organisations dependent on the social and economic process
2001	Aldrich	Evolutionary Approaches	Explore variation in organisational behaviour on account of intentional actions of agents seeking solutions to actions	Explore variation, organisational behaviour, intentional actions, seeking a solution to actions
2002	Stam	Evolutionary Approaches	Focus on individual rather than groups. Evolutionary and institutional analysis is combined with time-	Evolutionary and institutional analysis,

Source: McElwee et al. (2011)

Sociological entrepreneurship theories emphasise the need for entrepreneurs to conform to societal expectations that include social values, customs, taboos, religious beliefs and other cultural activities within societies in which entrepreneurs live. There is a positive correlation that exists between entrepreneurship education and economic development (based on economic, psychological and sociological entrepreneurship theories) in that they there exist within each theory a need to promote the establishment of entrepreneurs within society as leaders, managers and coordinators. The idea is critical for the study as it provides a sustainable answer to the question of how to effectively develop an entrepreneurship education program in Zimbabwe. The main aim is to carefully balance employability, education, training, creativity, innovation, opportunity recognition and prepare students for the unknown world.

Sundah, Langi, Maramis, Dan L Tawaluja (2018) believe entrepreneurial competence will promote entrepreneurs to conduct successful businesses. McClelland and Winter (1969) concluded in their study that entrepreneurial competency can be infused and developed in human minds through proper education and training. Danko (2005:4) further adds that.

“entrepreneurship education is a great enabler for a student who studies entrepreneurship at any education level. It can supply the student with many skills such as self-empowerment, values clarification, role modelling, and systems thinking. These skills are very important for all students who plan to become entrepreneurs”.

Job opportunities the world over and Zimbabwe are becoming scarce with more and more companies shifting their focus to technological systems (British Council, 2020). The adverse effect that this situation has on the average person living in the community is high unemployment levels and crime increases within societies (Nani, 2016). The Zimbabwean education curriculum should be designed to deliver appropriate education responses against

such actions by leveraging entrepreneurship education together with practical subjects. which would have a positive impact on the strength of the students' entrepreneurial spirit in terms of business start-up support. The next section provides details on the theory of entrepreneurial opportunity, identification and development.

#### **2.2.4 THEORY OF ENTREPRENEURIAL OPPORTUNITY IDENTIFICATION AND DEVELOPMENT**

Aarts, Chalker & Weiner (2016:38) define opportunity as "a time, juncture, or condition of things favourable to an end or purpose or admitting to something being done or effected". If we believe that ends are not always specified before the pursuit of an entrepreneurial opportunity but may emerge endogenously over time, we can unpack the constituents of an entrepreneurial opportunity from the second part of the above sentence.

An entrepreneurial opportunity, therefore, consists of a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them (Wasdani & Mathew, 2014). For example, the entrepreneurial opportunity that led to the creation of Netscape involved (a) the idea of a user-friendly Web browser set of decision-actions that brought together Marc Andreessen (the creator of Mosaic) and Jim Clark (the ex-founder of Silicon Graphics) to set up base in the small town of Mountain View (Wasdani & Mathew, 2014).

According to Lim and Xavier (2015), the Austrian school stresses the importance of market arbitrage in identifying opportunities, stating that market inefficiencies create disequilibrium in profit opportunities. Lim and Xavier (2015) further asserted that the Austrian school of thought proposed that entrepreneurs, through learning and knowing market gaps, which others do not have, exploit opportunities that arise from them. Audretsch et al. (2010) opine that opportunity recognition arises without an active search or plan. Focusing on the role of an individual in the opportunity recognition process, the economic discipline views such opportunities as a market imperfection or economic disequilibrium, which can be exploited by the discerning individual (Guo et al., 2016).



Kirzner (1997 cited in Lim & Xavier, 2015) also argued that opportunities exist because of the ignorance of the original market participants; entrepreneurs are those rare individuals who take advantage of these market inefficiencies by knowing or recognising things that others do not. This implies that “opportunities exist around us but only those special individuals with what Kirzner calls “alertness” can recognise the opportunity for what it is” (Lim & Xavier, 2015).

There are two opposing views regarding opportunities. Some people view opportunities as discovered, while others argue that they are created (Kuckertz et al., 2017). The first perspective is the positivist who assumes that reality has an objective existence independent of an individual’s perception. It is proposed that opportunities are formed by exogenous shocks to existing markets and they are ready for the entrepreneur to discover them (Lim & Xavier, 2015). The second perspective comes from constructionists, who argue that reality is a social product, which is a result of the social interaction of individuals. Its existence is dependent on the individual’s perception (Arcs & Audretsch, 2010:26). In this perspective, it is suggested that the entrepreneurs themselves form opportunities endogenously (Alvarez et al., 2007). It is argued that entrepreneurial opportunity recognition is a cognitive process, as it relies on the individual.

Shane and Venkataraman (2012) found that entrepreneurs use cognitive insights and spend more time compared to non-entrepreneurs in searching for information, which will lead to new business opportunities. Competencies such as the ability to identify a key opportunity need to be developed early as suggested by Lackeus (2015). OECD (2014) reports that it is equally crucial for entrepreneurship education programs to be developed over the full course of education, with the gradual development of business start-up introduction in later years. GEM (2017) states that nations such as the US, Ireland, Denmark have a progressive approach in which early intervention is followed up throughout secondary and tertiary education. However, there is a serious lack of entrepreneurship education activities even in the lower levels of education in Zimbabwe, with only tertiary institutions having adopted entrepreneurship at a first-degree level. Cunha and Heckman, (2010) warn that it will be

challenging to develop certain entrepreneurship competencies at later stages if early intervention does not take place, a serious cause for concern for this study to be conducted.

In Creation Theory, opportunities to produce and sell new products or services do not exist until entrepreneurs act on to create them (Kuckertz, Kohlmann, Krell & Stockmann, 2017). In this theory, entrepreneurs act and then wait for a response from their actions – usually from the market, and then they readjust and act again (Kuckertz et al., 2017). This form of entrepreneurial characteristics can be taught with entrepreneurship education programs (Chell, 2013). Mentoor and Fredrich (2007) propose two aims for entrepreneurship education, firstly it is aimed at presenting a ‘taste’ of entrepreneurship in the broadest sense and secondly, it should nature an individual’s career path so that they may at a later stage decide on which route to take.

Arcs & Audretsch, (2010) insist that in the process of acting entrepreneurs create opportunities that are unknown without the series of actions taken. Gielnik, Spitzmuller, Schmitt, Katharina Klemann & Frese (2014) admit that the formation of opportunities in this sense is both a path-dependent and emergent process in the creation theory. The process of acting and reacting enact the ultimate chance to exploit in the case the (opportunity). The creation theory is critical to the study as it widens the knowledge gap as to how the ever-growing unemployed youth problem in Zimbabwe (African Economic Outlook, 2020c; Ndofirei & Rambe, 2017) can be curtailed. According to Say (1803) cited in Sarasvathy & Venkataraman (2011:45), is of the view that.

“successful entrepreneurship requires specific skills and capacities, general ability (as opposed to specialised ability), and intelligence to enable one to attain great success in any pursuit and especially in business”.

General ability, according to Dew, Read, Sarasvathy & Wiltbank (2008:38) implies.

“to be able to bear in mind many things at a time, to have everything ready when wanted, to act promptly and show resource when anything goes wrong, to

accommodate oneself quickly to changes, to be steady and trustworthy, to have always a reserve of force”.

The two separate viewpoints imply an urgent need and call for the development and adoption of entrepreneurship education within the secondary education sector as a first step towards achieving economic development. Dew et al., (2008:40) added that,

“...human values and motives are what lead man to exploit opportunities, to take advantage of favourable trade conditions”.

The fundamental purpose of entrepreneurship education should be to enhance knowledge and awareness in students on self-employment opportunities available within communities, districts, provinces and the entire nation of Zimbabwe. Short, Ketchen, Shook & Ireland (2010:51) express reservation in their study on opportunity recognition, stating that “some opportunities are made, others found”. They interrogate the reasons behind the entrepreneurs’ cognitive style and logic of action concerning how the opportunity is perceived. Cheung (2012) maintains that entrepreneurs exploit business opportunities and contribute to economic development.

This viewpoint suggests opportunity comes into existence when an individual identifies it; simultaneously, an individual takes up the entrepreneurial activity because of the existing opportunity. Thus, it can be accepted that entrepreneurs do not only come up with ideas, but they also act on them. Therefore, both points of view are needed to be taught to enable students to create opportunities for entrepreneurship which is why the entrepreneurial opportunity identification theory is such an important aspect of the study. The next section examines the Human Capital Theory of entrepreneurship.

### **2.2.5 HUMAN CAPITAL THEORY OF ENTREPRENEURSHIP**

The Human Capital Theory gained prominence in the 1960s with the work of Schultz (1961) and Becker (1964 cited in Holden & Biddle, 2016). According to Becker (1964), the human capital approach led to entirely new ways of examining the labour markets because it is based

on the principles that the more workers invest in education and training the higher their earnings. The theory was originally developed to study the value of education (Becker, 1964; Schultz, 1961) and indicates that people have varying knowledge and skills that have economic value. The Theory originated from a branch of economics known as “Labour Economics” (Teixeira, 2014).

According to Marvel Davis & Sproul (2016:3), the Human Capital Theory further suggests, “Education and training enhance the productivity of individuals by imparting useful knowledge, skills and levels of technology in individuals”. Human Capital theorists encourage spending on the nation’s workforce because expenditures on training and development are a productive investment, like an investment in physical assets (Olaniyan & Okemakinde, 2008).

The Theory has increasingly been applied within the realm of entrepreneurship, consistently linking human capital attributes to entrepreneurial success (Unger & Rauch, 2011). It also gave birth to a large number of studies, which included human capital into their prediction models of success in entrepreneurship (Davidsson & Honig, 2003; Teixeira, 2014).

Researchers have employed a large spectrum of variables, all signifying human capital, such as formal education, training, employment experience, start-up experience, owner experience, parent’s background, skills and knowledge (Rauch Frese & Utsch, 2005). According to Ojeifo (2013), the Human Capital Theory provides a framework that examines the impact of acquired variables, such as education, learning and experience, on career outcomes. It was further developed on the assumption that education serves as a key determinant of decision choice and provides benefits to specific ventures.

Following this fact, Olaniyan and Okemakinde (2009), suggested that education should be designed to create and enhance the supply of entrepreneurial initiatives and activities.

The bottom line here is to inculcate and instill a spirit of entrepreneurship in a student through entrepreneurship education. This calls for more serious adjustments of policies and a new curriculum in line with the demands of the present time. Shane (2012:13) supported

this view and described human capital “as stocks of knowledge and skills which enable individuals to create economic value”.

The Human Capital Theory depends heavily on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population (Teixeira, 2014). In short, the proponents of the Theory argue that the more education a population acquires, the more productive the population becomes. It emphasises how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings (Blimpo & Pugatch, 2019).

McCracken, McIvor, Treacy & Wall (2017) argue that human capital plays an important role in economic growth and poverty reduction. From a macroeconomic perspective, the accumulation of human capital improves the productivity of labour, promoting technological innovations, entrepreneurship promotion, increasing returns to capital and making growth more sustainable, which in turn, reduces poverty. While at a macro-level, this is seen as a key factor of production in the wide economy functions of production. From a microeconomic perspective, education increases the probability of being employed in the labour market and improves earnings capacity. McCracken et al. (2017) further assert that at the micro-level stage, “human capital is considered the component of education that contributes to an individual’s labour productivity and earnings, while being an important component of firm production”.

To expand on the above viewpoints, human capital is described as the ability and efficiency of people to transform raw materials and capital into goods and services, and the consensus that those skills can be learned through the educational system, such as entrepreneurship education (Davidson & Honig, 2003). It is equally defined as the skills and knowledge that individuals acquire through investments in schooling, on-the-job training, and other types of experience (Unger & Rauch, 2011).

Human capital “is harnessed through entrepreneurship education because it improves a student’s attitude and intentions, as well as creating new business ventures” (Linan, Rodríguez-Cohard, Rueda, Martínez, 2005.). Similarly, Martin et al. (2013) confirmed that

there is a significant relationship between entrepreneurship education and human capital outcomes, such as entrepreneurship-related knowledge and skills.

Entrepreneurship education is critical in advancing entrepreneurial activity as attested by views provided for in the economic, psychological, sociological, opportunity and human capital theories discussed in this chapter. It should be considered that not all students who are provided with an opportunity to learn about entrepreneurship will eventually be transformed into entrepreneurs. Every secondary going student must be allowed to enlist in entrepreneurship education programs. The benefits thereof will support students in the long run after formal education to develop ideas, seek opportunities, take the risk, create something new and eventually start new businesses. Dhliwayo (2008:334) insists that “only students with a fitting entrepreneurial attitude will be successful in becoming entrepreneurs”. Table 2.4 provides entrepreneurship theories that have been selected for use in the study based on economic, psychological, sociological, opportunity and human capital theories discussed in this chapter. A conceptual framework to further provide how this study is guided is provided in Table 2.1.

**Table 2.4. Entrepreneurship Theories for the Study**

AUTHOR	SCHOOL OF THOUGHT	MAIN IDEA
SCHUMPETER	Radical	Radical innovation, creative destruction, the detached risk from entrepreneur
SAY	Radical	successful entrepreneurship requires specific skills and capacities, general ability (as opposed to specialised ability)
KIRZNER	Austrian	Entrepreneurial discovery in the phase of disequilibrium
MARSHALL	Early and Classical	Entrepreneur continuously seeks opportunities to minimise costs
MCCLELLAND	Personality traits	Entrepreneurial pursuits represent the desired moderate risk situations, for individuals with a high need for achievement
AJZEN	Cognitive Aspect	(TPB) Intention to develop and improve on entrepreneurial skills.
CHELL	Social Constructivist	Entrepreneurs are distinguished from non-entrepreneurs by their motivation for wealth creation, capital accumulation, the ability to recognise opportunities and their judgement
BARON AND TANG	Cognitive aspect	Creativity (and to a lesser extent, general mental ability) also contributes to opportunity identification
GIELNIK	Cognitive aspect	General mental ability and creativity, and information acquisition is needed to explain opportunity identification
WEBER	Early and Classical	Entrepreneurship determined by religious concepts
HANNAH AND FREEMAN	Evolutionary Approaches	A new theory based on learning by doing brought out an evolutionary approach known as Population Ecology focused on presence, characteristics, and changes in a population of organisations in an ecological context provided by the host society
LIM AND XAVIER	Theory of entrepreneurial opportunity identification and development	The opportunity consists of a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them.
SCHULTZ	Human Capital Theory	Education and training enhance the productivity of individuals by imparting useful knowledge, skills and levels of technology to individuals

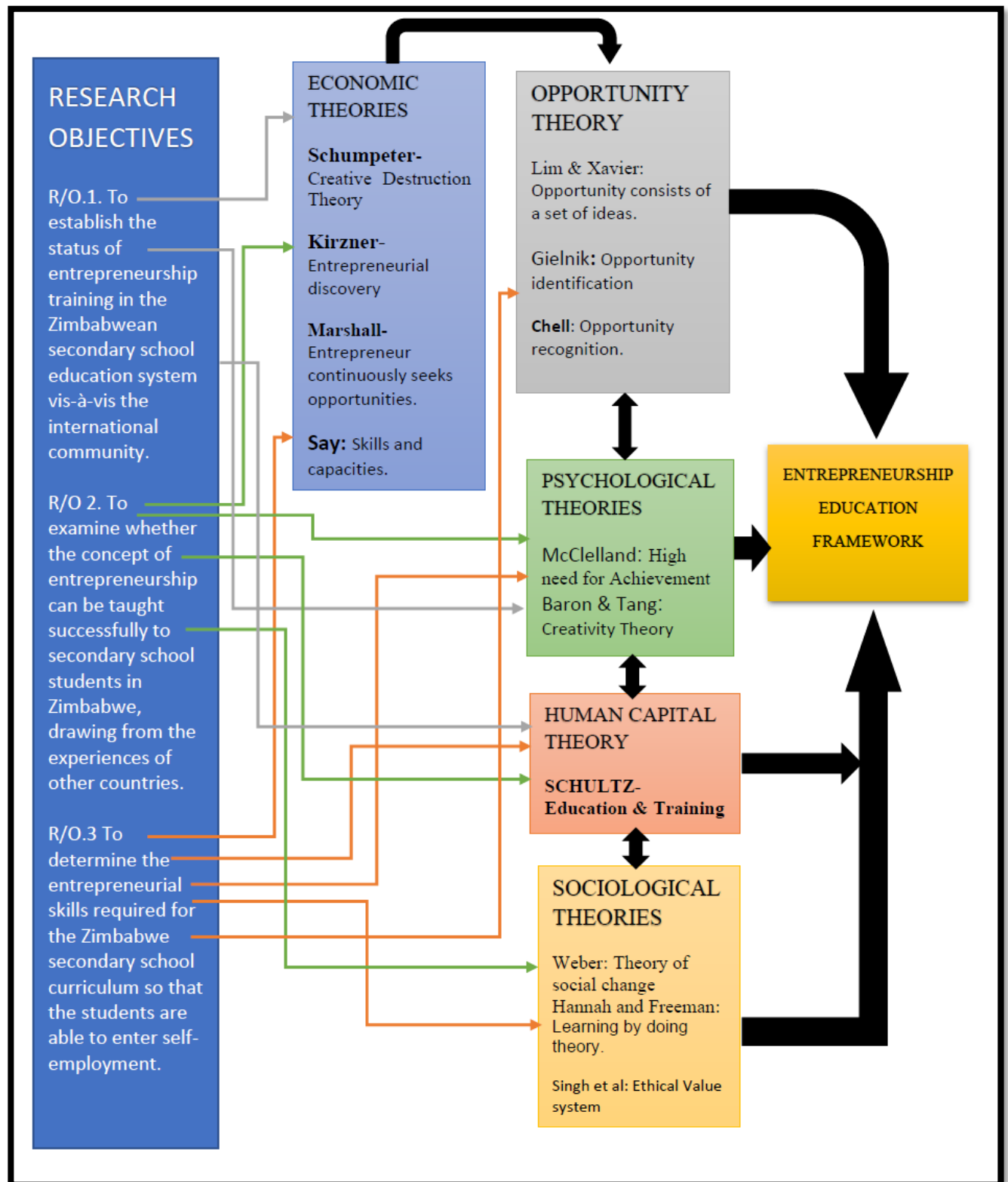
Source: Compiled by author

The entrepreneurship theories that have been selected from the various fields of economics, psychological, sociological, opportunity and human capital-based to provide a basis from which the study will be guided in the development of an entrepreneurship education framework for secondary education in Zimbabwe. Several scholars (Acs, Audretsch & Lehmann, 2013; Chell, 2013; Mwasalwiba, 2010; Nani, 2016; Ndofirei & Ramber, 2017) advocate that entrepreneurship education programs developed within education systems can create positive attitudes, intention and skills amongst students leading them to make decisions on becoming entrepreneurs. Although Lynch, Kamovich, Longva & Steinert (2019) argues against the views and opines that the impact of entrepreneurship education may not always lead to economic development and growth. Lynch et al., (2019) consider EE's impact on a well-thought-out structure that helps bring desired economic growth and development. The scholars (Acs, et al., 2013; Chell, 2013; Mwasalwiba, 2010; Nani, 2016; Ndofirei & Ramber, 2017) further stress that entrepreneurship programs can increase and alter positive social change within communities that steers economic development for nations. A development that guides the study towards the establishment of a framework for entrepreneurship education.

The current literature on entrepreneurship education in Zimbabwe focused on the impact of entrepreneurship education on the performance of small, micro and medium enterprises (Chimucheka, 2012), implementing strategies for entrepreneurship education in Zimbabwe (Mawonedzo et al., 2020); entrepreneurship education in the school curriculum (Nani, 2016), implementation of entrepreneurship in Teachers' Colleges (Nani & Mpofu, 2015), entrepreneurship education and its impact on the entrepreneurship career intentions of vocational education students (Ndofirei & Rambe, 2017), and most studies have paved way for a clearer understanding of the Zimbabwean situation in regards to how entrepreneurship education is perceived and understood within the various education sectors. There is a gap regarding the framework for entrepreneurship education, particularly within the secondary school education system. The study was there designed to develop a framework for entrepreneurship education that translates into education policy as a way to reduce the unemployment rate (particularly of students who will have completed formal education) and improve the economic development of Zimbabwe. Figure 1,2 outlines the theoretical framework for the study.



**Figure 2.1 Theoretical Framework**



Source: Compiled by author

Within the theoretical framework for the study lies three research objectives which are,

1. To establish the status of entrepreneurship training in the Zimbabwean secondary school education system vis-à-vis the international community.
2. To examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe, drawing from the experiences of other countries.
3. To determine the entrepreneurial skills required for the Zimbabwe secondary school curriculum so that the students are able to enter self-employment.

The study is guided is from an economic standpoint using Schumpeter's economic development theory, Kirzner's entrepreneurial discovery theory, Marshall's theory of value and Knight's theory of entrepreneurial function to inform all three research objectives. The purpose is to clearly distinguish the entrepreneurial function and role of the entrepreneur in the economic process. In this case, the study provides a basis for the development of entrepreneurship education within the Zimbabwean education system focusing on the role that entrepreneurship education can play in fostering entrepreneurial knowledge, skills, attitudes, and beliefs.

Schumpeter (1991) believes continuous creative destruction by entrepreneurs is determined by human economic development and as such economic progress is derived from innovations. Schumpeter (1991) emphasise that entrepreneurship should be encouraged and that entrepreneurs are innovators and not imitators in production a concept that is important for the study in establishing key competencies for an entrepreneurship education framework.

A successful entrepreneur in Marshall's view (1947:297) is one who produces for the market, is an organiser and coordinator of production and most importantly has true knowledge of the things of his trade. The entrepreneur in Marshall's view should have the ability.

1. of analysing the changes in production and customer preferences.
2. Seeking and identifying opportunities for supplying new goods and services.
3. Most importantly take a risk (Marshall, 1947:297).

Marshall's theory will inform the structure of the entrepreneurship education framework extending to psychological, sociological, human capital and opportunity identification theories for the study.

While Kirzner theory (1997:34-35) stresses that,

“the entrepreneur who ‘sees’ (discovers) a profit opportunity, is discovering the existence of gain which had.... not been seen by himself or anybody else”.

According to Kirzner the theory of alertness is key in shaping an entrepreneurs' role in the economy. Due to disruptions to national economies the world over and in Zimbabwe with the recent one being COVID 19 pandemic which has forced most businesses to close, offering no alternative ways for people to maneuver and very little economic activity taking place. The emergence of EE within the Zimbabwean education system can promote the spark that is needed in creating disruptive innovative businesses that challenge these current scenarios. That can be achieved if an alert entrepreneur is positioned within the economy to identify key aspects that need attention. Christensen (2013) acknowledges that the teaching of EE must embrace the new realities of disruptive economic mishaps, both in terms of teaching methodologies and tools, which are translated into knowledge that students can apply in a real context.

The Knight theory of uncertainty is used for the study to provide a better understanding of the rationale that drives entrepreneurs to make decisions on becoming self-employed. The behavioural aspects involved in the decision-making process that affect an entrepreneur's decision under the Knightian uncertainty approach are also extended to Azjen theory of planned behaviour, Lim and Xavier's opportunity identification theory which regards personality traits (creativity and optimism), prior knowledge and experience and social networks as contributors of entrepreneurial alertness.

Ndofirei (2020) presumes that societies that have more individuals with entrepreneurial attributes have by extension greater entrepreneurial activity resulting in economic progress compared to those with lesser. McClelland's need for achievement theory and Azjen's ATP

are psychological theories that are used for the study (objective 1, 2 & 3) to shape the entrepreneurial traits that include the need for achievement and entrepreneurial intention.

The human capital theory proposed by Becker informs the study on ways of how EE can reinforce teacher training and development in Zimbabwe (Objective 1) for the development of would-be entrepreneurs in the secondary school education system. The entrepreneurship education framework should address deficiencies that exist within the current teacher training colleges by leveraging on EE success in developing entrepreneurially minded students who will play a crucial role in the economic growth of Zimbabwe through job creation.

## **2.3 CHAPTER SUMMARY**

This chapter presented theories (economic, psychological, sociological, opportunity and human capital) that inform the study based on the three research objectives. The study is informed by four (4) economic theories Schumpeter's economic development theory, Marshall's value creation theory, Kirzner's alertness theory and Knight's uncertainty theory which also extends to psychological, sociological, opportunity-based and human capital theories on the entrepreneurial function as well as the role of the entrepreneur. The development of an entrepreneurship education framework is seen as a panacea for unemployment issues as informed by various extant literature that was interrogated in the chapter. It against such a background that if EE is introduced in secondary curricula it may spur student's knowledge, develops their attitudes, capabilities and values that will eventually promote an entrepreneurial mind and aid to economic development in Zimbabwe. The next chapter addresses the current status of entrepreneurship education training in secondary school.

# CHAPTER THREE: CURRENT STATUS OF ENTREPRENEURSHIP EDUCATION IN SECONDARY SCHOOL

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## 3.1 INTRODUCTION

Chapter two conceptualised the evolution of entrepreneurship focusing on classical and modern theories of entrepreneurship with a view of establishing the entrepreneurial function and the role of the entrepreneur. Most of the scholars concur that an entrepreneur is a prime mover of economic development (Acs, et al., 2016; Alavarez, Godley & Wright, 2014; European Union, 2014c; Ndofirei, 2016).

The next three chapters (Chapter 3- 5) are literature review chapters that address three research objectives of the study. Chapter 3 (three) addresses research objective 1 whereas chapter 4 (four) addresses research objective 2 and finally chapter 5 (five), research objective 3).

Chapter 3 reviews the literature on the current status of EE in the secondary school education system in Zimbabwe vis-à-vis the international community. The chapter begins with a comparative analysis of EE status in the secondary school education system in Zimbabwe and the USA, Europe, Asia and Sub Sahara Africa. The approaches, teaching methodology, practices to EE together with why it is critical to the Zimbabwean secondary education system will be analysed. The important aspect of extrapolating the role of the teacher in the entrepreneurial process within the Zimbabwean context using the competency-based approach will be discussed. A summary will be provided at the end of the chapter.

### **3.2 A COMPARATIVE ANALYSIS OF THE CURRENT STATUS OF ENTREPRENEURSHIP EDUCATION IN SECONDARY SCHOOLS IN ZIMBABWE VIS A VIZ THE INTERNATIONAL COMMUNITY**

There are differences, similarities and contrasts to the current status of entrepreneurship education programs offered across the many parts of the world, the way and manner these programs are offered, the overall benefit that EE has to economic development, to which levels and in what form particularly in secondary schools including in Zimbabwe. Section 3.2 is critical to the study as it sheds light on Zimbabwe's current position regarding EE adoption and integration in secondary school education. The views and best practices from other parts of the world provide a basis from which to analyse far off Zimbabwe is from the rest of the world.

According to Nani (2016), the Government of Zimbabwe adopted practical subjects in the education curriculum as recommended by the 1999 Nziramasanga Commission aimed at creating graduates after formal education who could create jobs. Nani (2014) advocates that the adoption of the Nziramasanga Commission's recommendations by the Government of Zimbabwe meant two intriguing aspects for the teachers and students in Zimbabwe,

1. whether trained or not the teaching of practical subjects had to take place.
2. Students were to be equipped with skills that would make them create their jobs.

Unlike in Zimbabwe, entrepreneurship education in Europe and Asia begins at primary school where it is included in the curriculum largely in the form of cross-curricula objectives (European Union, 2020; Wu & Wu, 2017). In secondary schools, entrepreneurship education is considered both as a separate and as an integrated subject in social sciences, economics and business studies in Europe (European Union, 2014c).

While many European countries report integrating entrepreneurship education in their curricula, the European Commission (2020f) suggests that European countries are not prescribed to use certain criteria in how they approach entrepreneurship education within

their nations. Whereas in the Zimbabwean context, business studies is the only subject offered at the advanced level stage for students who will have completed ordinary level education. It is what stands as any form of business management material in the secondary school education system in Zimbabwe. The business management subject is not a compulsory subject to all students at the advanced level stage and even for the students that take up the subject, the content involved neither takes students through the entire process of entrepreneurship education nor business start-up. Entrepreneurship education is not offered as a subject in the Zimbabwe secondary education system.

Ndofirei and Rambe (2017) acknowledge that it is only in universities, technical and vocational training colleges TVET that compulsory EE programs are offered to widen students' career options after graduation. Universities at the same time in the Zimbabwe area offering various EE programs ranging from certificates to degrees in Zimbabwe (Ndofirei, 2016). Despite the lack of EE in the secondary school education system in Zimbabwe, teaching colleges in Zimbabwe except for Belvedere Teachers' College have not embraced EE as a subject that requires teachers to be trained and qualified on. This view is echoed by Nani and Mpofu (2015) who postulated that teachers' colleges have skilled personnel challenges to train teacher educators to implement entrepreneurship in schools. From an EU perspective, teacher education is not yet fully incorporated into most national strategies (European Commission, 2010a). Correia, Wang, & Baran, (2010) further reiterates that in both primary and secondary education, there are no courses that have been incorporated to develop and improve information and skills in pre-service teachers on entrepreneurship and innovation in Europe.

An exemplary model for effective collaboration on EE adoption resides in Singapore, Denmark and Sweden where the Ministries of Education collaborate with schools to place EE pre-service teachers in schools that offer EE as a subject and monitor progress. From an EU perspective, teacher education in EE is not yet as fully into most national strategies (European Training Foundation, 2010). Programmes for teachers in Austria, Germany, France are oriented towards improving entrepreneurship knowledge for teachers through access to industry, giving them opportunities to learn about the problems that companies face and

bringing the experience back into their education programmes. Acs, et al., (2016) believe that a mutual understanding between educational professions and the world of industry has heightened economic development in most European nations as economic issues are tabled with the education fraternity. A valuable tool for the study in developing an EE framework for the Zimbabwean education system.

Extant literature has shown that there is either an absence or lack of entrepreneurship education pre-service training in many countries within Europe, Asia and Africa notwithstanding Zimbabwe. Gustafsson-Pesonen & Remes (2012) concurs that attitudes of teachers towards EE have been a major barrier to EE adoption and integration in schools as they view more to be a business-related subject that can only be taught within business line of thinking. Ndofirei (2016) expressed concern as to what he termed as a major critical challenge to EE adoption in secondary schools in Zimbabwe where teachers are not being prepared to teach EE. In Germany, competence models provide teachers in training with practical tools to prepare and monitor learners' competence development based on their previous experiences during different types and forms of education settings (Vestergaard, Jorgensen, Hakhverdyan & Markussen, 2012). More specifically, competence models in China assist in training teachers to establish suitable learning aims, outcomes, learning activities, and assessment methods for their target group (Hattie, 2013).

In tackling unemployment issues the Indian government adopted a National Policy on Skill Development in 2009 in its vocational and teacher training provision (Zenner, Kumar & Pilz, M, 2017), which set the goal of training 500 million individuals by 2022 using the competency-based approach. In 2015, this policy, according to Zenner et al. (2017), was updated as the National Policy on Skill Development and Entrepreneurship, which regards the promotion of entrepreneurship as a crucial tool in the fight against poverty. The introduction of the "employability skills" curriculum takes "delivery context" (Palmer, Wedgwood, Hayman, King & Thin, 2007) into consideration, aiming firstly to enhance the quality of teacher training through a competency-based approach and secondly to facilitate the school-to-work transition of students.



The goals of EE in most US high schools are more tightly intertwined with economic development emphasizing developing students' skills in small business start-ups. An accomplished initiative in Austria is the Entrepreneurship skills Certificate, a voluntary additional qualification to support the development of student knowledge of business and entrepreneurship in schools. The initiative is an add-on to the compulsory EE curriculum offered in secondary schools. The Austrian certificate is recognised widely as best practice and has been adopted in Germany, France, Czech Republic as well as Albania, Kosovo, Mali and Ethiopia.

EE is a holistic activity in France Austria, Germany, Sweden, Denmark and Egypt which should be taught in all subjects not as curricula add on. These nations believe that sustainable EE is only possible if it is an integrated part of school life and involves everyone hence an organisational framework for EE has been put in place. Junior achievement programs on EE are run in South Africa, Nigeria, Mozambique across Europe, the US and Asia that involve students participating to develop mini-companies, network with and formulate joint ventures with other similar student companies. Estrin, Mickiewicz & Stephan (2013) maintain that China's transition from planned to a market economy through re-examining institutional policy reforms including the introduction of EE in education curricula is believed to have contributed to the economic development and growth of China.

The Global Perspective on Entrepreneurship Education and Training conducted research which was based on in 38 countries in 2015 and concluded that,

- Approximately 80% of the people who received business start-up training through EE attributed their business success to their formal education.
- EE programs were better implemented at schools than at the tertiary level.
- Approximately 60% of self-employed individuals received business training through informal means (GEM, 2016).

The perspectives on EE and how as a program it has been used internationally to transform other nations to become competitive as well as promote economic development (GEM, 2016;

Global Employment Trends, 2014, OECD, 2017), Zimbabwe as a nation has fallen short both on its implementation and adoption of EE into education curricula particularly in both primary and secondary education (Nani, 2016; Ndofirei and Rambe, 2017).

What needs to be done about the Zimbabwean education system? How and by when will Zimbabwean students in secondary school benefit from EE knowledge and expertise? Would they wait until they get into tertiary, vocational and university education for them to acquire EE skills and knowledge as in the case now? Is the current curriculum in secondary school education (*that emphasises on the acquisition of practical skills*) going to fully equip students to open up businesses and become self-employed? What is the role of the teacher in all this? These are questions that need answers.

### **3.3. Approaches To Entrepreneurship Education – The Zimbabwean Context.**

Any form of discussion on entrepreneurship education needs to start with clarifying which definition is used. Through it, the essence, concerns and objectives of the phenomena are discovered. Gibb (2007a: 4) advises that,

“in developing any entrepreneurial learning strategy, there is a need to resolve a conceptual confusion concerning the relationship between Enterprise, Entrepreneurship, Entrepreneurship Education and Innovation. This confusion impacts adversely upon efforts to develop Entrepreneurship Education as an academic field, but also in the minds of learners”.

Mwasalwiba (2010) opines that educational objectives, target audiences, course content design, teaching methods and student assessment procedures are profoundly affected by the definition and approach used especially when it comes to EE, which is why section 3.2.1.1 explores the key terms within EE, providing a critical underpinning for the study.

### **3.3.1 Enterprise education and entrepreneurship education.**

According to Lackeus (2015), two terms are normally used in the entrepreneurship field, enterprise education and entrepreneurship education. Enterprise education and entrepreneurship education combined create entrepreneurial education (Leffler and Falk-Lundqvist, 2013a). Heder et al., (2011) further add that in other nations, entrepreneurial learning is often used as an equivalent to enterprise education. However, QAA (2012) defines enterprise education as focusing more broadly on personal development, mindset and abilities, whilst Henry (2020) insists that it deals with developing attitudes, competencies and behaviours for functioning entrepreneurially within non-business contexts.

On the other hand, Lackeus (2015), Jones and Iredale (2010) opine that entrepreneurship education is meant to focus more on the specific content of setting up and becoming self-employed.

Gibb (2007a) expresses that entrepreneurship education and enterprise education are conceptually the same but contextually different. Jones and Iredale (2010: 11) maintain that,

“a key differentiator between entrepreneurship and enterprise education lies in the pedagogical approach that is adopted”.

The term entrepreneurship education (EE) shall be used for the study as it narrows specifically on setting up a venture and becoming self-employed, aspects that are in line with the objectives of the study. It is implicit that EE within the Zimbabwean secondary school education context be adopted although its primary focus is on job creation and enabling youths to be self-employed as opposed to enterprise education which Jones and Ireland (2010) who propose that it addresses more the needs of a wider community. The next sections provide definitions of entrepreneurship education, its importance in the secondary education system and the link between education and entrepreneurial activity.

### **3.3.2 Defining Entrepreneurship, Entrepreneurship Education and Entrepreneur.**

Seikkula-Leino (2011) contends that understanding the concept of 'entrepreneurship' is fundamental for defining entrepreneurship education. Most importantly, entrepreneurship with an emphasis on EE is suggested, identified and presented as a way to drive the sustainable economic development of economies around the world (Neck, Greene & Bush, 2015; Audretsch & Thurik, 2001).

Bell, 2015; Karimi, Biemans, Lans, Chizari, & Mulder (2015) conceive that entrepreneurship is highly placed by scholars, governments and development aid agencies as key to economic development, job creation and improvement of standards of living of people in different communities. Ndofirei (2016) believes that this view, in part, is rooted in economic theories propounded by Knight, Schumpeter, Schultz, Marshall, Kirzner and Cantillon who acknowledge the entrepreneurial function as a powerful driver of economic activity and place the entrepreneur at the centre of it all.

Nieman, Hough & Nieuwenhuizen (2014) define entrepreneurship,

“as the emergence and growth of new businesses. It is the process that causes changes in the economic system through innovations of individuals who respond to opportunities in the markets”.

From the definitions provided on entrepreneurship, it can be noted that entrepreneurship is about opportunity identification, improvement of people standards, growth of a new business, innovation where entrepreneurs play a key role as value creators for society and self. Without the establishment of a business, the process of entrepreneurship according to Nani (2016) is incomplete.

Whereas, in the educational context, Gibb (2007c) argues that behaviours, underpinned by certain skills and attributes, are important in the attainment of goals. In this vein,

Gibb (2007c :3; 2008d: 6) defines entrepreneurship educational as,

“...behaviours, skills and attributes applied individually and/or collectively to help individuals and organisations of all kinds to create, cope with and enjoy change and innovation involving higher levels of uncertainty and complexity as a means of achieving personal fulfilment and organisation effectiveness.”

Wilson (2009) in agreement with Gibb’s definition of EE opines that EE is the development of attitudes, behaviours and capabilities that can be applied during an individual’s career as an entrepreneur. Gautam and Singh (2015:22) describe EE as,

“a study of the source of opportunities and process of discovery, in which an individual endeavours his ability of creativity, risk-taking and turn his ideas into action”.

Turning ideas into action is a fundamental skill needed to be mastered by every student in any education system and would be critical in element EE practice. Brush (2014) based on Kuratko (2005) insist that EE within a school virtually involves a set of activities that include co curricula activities, curriculum and research efforts. Importantly, Brush (2014:30) expresses that,

“decisions around entrepreneurship education include everything from learning objectives, topics covered, selection of materials (including cases, exercises, and concepts), pedagogy, and delivery mechanisms”.

The EE idea goes beyond teaching students to start new businesses (Ndofirei 2016). It involves the process of discovering capabilities and strengths that will help students’ years after formal education. Moberg, Stenberg & Vestergaard (2012:14) on creating value insists that EE is all about,

“Content, methods and activities supporting the creation of knowledge, competencies and experiences that make it possible for students to initiate and participate in entrepreneurial value-creating processes”.

An important definition that is in line with the study's main aim and critical to the Zimbabwean education system's adoption of EE within secondary schools. Steenkamp (2013:104) sums it all up and puts that EE interventions promote the,

“...desire, self-reliance, awareness of opportunity, adaptability to change and tolerance of risk and ambiguity by modifying attitudes, and instilling attributes, intentions, behaviours, knowledge and skills enabling individuals and groups to participate meaningfully in all aspects of life, create something of value, and gain financial independence, or personal satisfaction, or both”.

The UK Government defines ‘an entrepreneur as,

“Anyone who attempts a new business or new venture creation, such as self-employment, a new business organisation, social enterprise” (European Union, 2013b).

Drucker (2010:25) recognises an entrepreneur as,

“an entrepreneur as more than a business owner/manager, by defining them as achieving an ‘upgrade in yield from resources”.

The definitions of the entrepreneur emphasize the entrepreneur's role as a creator of goods and services based upon the vision and talents one has. Gibb (2007c) views the entrepreneur's role as an agent for economic renewal, a tool for creative destruction and as a pursuer of opportunity as being critical in any economy. Views, which Matlay (2008) advocated are used by nations in their economic policy frameworks as they view entrepreneurship and entrepreneurship education as the panacea for stagnating or declining economic activity.

It is encouraging to note that all the definitions indicate the element of behaviour meant to instil and steer entrepreneurial activity. Activities that inspire students to develop attitudes, beliefs and convictions about their capabilities. Above all, the definitions point towards developing students to understand who they are and what they are capable of, in the process

be able to exploit that understanding to be independent and have control. So why is EE important especially in the secondary school education system?

### ***3.3.3 Importance of EE in the Secondary School Education System.***

According to Timmons, Eisenman & O'Connor, (2015) EE is perceived as a form of education that aims to raise individuals who are capable of starting a new business and is profoundly described as the premise upon which economies of the world can experience development and sustainability. Despite the Zimbabwean government's desire for the country to have more entrepreneurs who initiate business startups, innovate and create new technologies, products and create business opportunities, it is of great concern that the Zimbabwe secondary school education curriculum does not explicitly promote entrepreneurship (Dabale & Masese, 2014). Nyoni (2018) retorts that only a handful of Zimbabwean graduates own businesses and companies, a sign which indicates why establishing EE within the secondary school education system will be key in promoting business start-up ideas at an early stage.

Lackeus (2015) identifies the creation of value as the key goal in EE. He stresses that learning and value creation are thus seen as two main aspects of entrepreneurship and believes that,

“letting students try to create value for outside stakeholders will then result in the development of entrepreneurial competencies, regardless of whether successful value creation is being achieved or not (Lackeus, 2015:11).

Due to the need for nations such as Zimbabwe to remain competitive through producing more graduates that will open new businesses which will generate income and create employment, Gibb (2007c) postulates that that particular need is a global one which every nation seeks to archive and proposes a need for an entrepreneurial response.

In the case of the Zimbabwean education system, practical subjects were included in the curriculum as a pedagogy that will equip students with skills that will help them to continue even after school. According to Ndofirei and Rambe (2017), the purpose was to produce graduates who can create their own jobs after leaving formal education. The questionable

factor in the acquisition of skills is whether the process includes alertness, identification of opportunities, business, start-up, creativity, the taking of risk and running a business. EE equips students to have an entrepreneurial character that is derived namely from two forms, planting entrepreneurial character values (internal) and shaping students into being entrepreneurs (external) (Korhonen, Komulainen & Raty, 2012). Nani (2016) supports Korhonen et al., (2012) assertions and state that for Zimbabwe,

“The teaching of practical subjects should not be an end in itself, but a means to an end. Learners should not only be equipped with practical skills but should also be exposed to the transformation and utilization of these practical skills in setting up and running actual businesses from an elementary stage and not only at higher levels of education”.

The indicators are conditions for the adoption of EE within the Zimbabwean education system must be present since extant literature showed that EE is non-existent within the curricula. (Ndofirei, 2016; Nani, 2016; Ndofirei and Rambe, 2017). With that in mind, the next sections discuss conditions necessary for the adoption of EE in the Zimbabwean secondary school education system. The important aspect of extrapolating the role of the teacher in the entrepreneurial process is given which also includes the methods and practices that should be applied within the Zimbabwean context using the competency-based approach will be discussed.

### **3.4 Conditions Necessary for the Adoption of EE in the Zimbabwean Secondary Education System.**

Lackeus (2015) identifies knowledge, skills and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation as entrepreneurial competencies that are developed through EE. However, for these EE competencies to be developed in the Zimbabwean secondary education system, there have to be conditions that have to be met which include professional development programs for teachers, competency-based EE teaching methodologies, teacher training programs, recognising EE as a transversal competence, conducive environments for teaching and learning, EE policy, resources for EE,



partnership and collaboration between education ministries and industry. These will be discussed in detail in the following sections.

### **3.4.1 Professional Development Programs for Teachers.**

Alvos (2011) and Hill, Beisiegel & Robin (2013) argue that teachers do not graduate from colleges of education with the EE skills and competencies needed to be successful in the outdated factory model of education. The belief is that EE is a new phenomenon in the education sector and especially in the secondary school education system in Zimbabwe.

According to Bautista & Orteg-Ruiz (2015), teacher professional development is an essential mechanism for enhancing teachers' knowledge and instructional practices through carefully designed programmes. Similarly, Alvos (2011) views teacher PD as a process through which teachers learn, learn how to learn, and transform their EE knowledge, competencies, and skills into practice, with a view of enhancing students' achievement of learning outcomes. Nyoni (2018) argues that it is rare in Zimbabwe for graduates to quit their jobs (*if they happen to have one*) in preference for a business start-up indicating that the education system offered only prepares students for organisational employment rather than starting and managing a business. This typically implies a lack of training on the part of the educators in schools which is why PD programmes on EE must be carried out in all the 10 provinces of Zimbabwe.

A reviewed report on studies on PD using EE competence models in planning, teaching and assessment for high school teachers found that,

“teachers who received at least 14 hours of EE PD courses demonstrated a positive and significant effect on student achievement” (Frederick & Kuratko, 2010:290).

Blenker, Frederiksen, Korsgaard & Wagner, (2014) concur that in Australia, EE PD programs support teachers in developing students' entrepreneurship competence throughout their schooling. Since EE will be a new phenomenon to the education system in Zimbabwe, The Centre for Public Education recommends that,

“effective EE PD must allow time for teachers to learn a new strategy and grapple with the implementation problems by addressing the specific challenges of changing classroom practise” (Cator, Schneider & Van der Ark, 2014:45).

As such Zimbabwean teachers need to abreast themselves with EE programs as their role in curriculum implementation is key. Blenker et al. (2014) recommend that education systems, therefore, should seek to provide teachers with opportunities for in-service PD in EE to maintain a high standard of teaching and to retain a high-quality teacher workforce. On the other hand, Arasti, Falavarjani & Imanipour (2012) add that to remain consistent and competitive in educational reforms especially in with EE development within curricula, teachers are expected to enrich themselves constantly with the necessary knowledge related to EE pedagogy, teaching methodologies and to be updated on all issues about in EE. The next section analyses competency-based EE teaching methodologies.

### ***3.4.2 Competency-Based Entrepreneurship Education Teaching Methodologies***

Successful EE in the secondary school education system in Zimbabwe depends on identifying effective methods for inculcating knowledge and skills in students that create a balance between student’s perception and the teaching methodology used. In this regard, Steenkamp (2013) considers EE to be an art and a science. The functional skills required to start a business relate to the science part and the creative form which is art related to entrepreneurship. Jensen and Haara (2019) confirm that EE has not become widespread in the general context of teacher education and teaching methodologies. Many teachers need intensive guidance and support to be able to teach according to the innovative principles, which EE demands Battaglini and Mancini (2016).

Gibb (2007c:4) insisted that,

“Developing an ‘entrepreneurial mindset’ within the classroom environment is a challenge for any educator. It demands the formulation of integrated learning and teaching strategy which aligns intended learning outcomes with the effective selection of pedagogy”.

Alvos (2011) propose a rift of changes in the teaching of EE within the context of experiential learning, project-based learning and competency-based approaches that require 'ambiguous' teaching. Experiential learning as proposed by Bennett (2016) is an innovative method of teaching EE which as the strategy in class demands that the teacher stimulates learning and encourages students to rediscover themselves in terms of their abilities, knowledge and attitude towards EE. Gibb (2012f) identifies these features as,

“a way student can learn from one another; are practical; conscious; debate and exchange ideas; guided to make self-discovery; are exposed to an informal and flexible learning atmosphere; and learn from their mistakes and by solving problems”.

Extant literature on teaching methodology in EE point towards student-centered learning that is vested in active experiential learning and not didactic traditional methods which is commonly known in most education circles and very prevalent in the Zimbabwean education system as noted by Nyoni (2018); Saidu, (2018) and Nani (2016). Zimbabwean secondary schools are not teaching EE although entrepreneurial skills are teachable (Chell, 2013; Kuckertz & Berger, 2017; Mwasalwiba, 2010). Mpofu (2017) argues that Zimbabwean secondary schools still teach students how to work for entrepreneurs, and not the process of acquiring the knowledge on how to establish and manage their own businesses.

Although the curriculum in Zimbabwe is deemed to be competency-based, Biesta (2009) insists that today's traditional education shows no sign of weakening in the current education policy climate focusing on measurement and performativity. Lepoutre, Van Den Berghe, Tilleuil & Crijns, (2010) however dismiss those claims and insists that experiential learning has a positive effect on entrepreneurial self-efficacy (*which is the extent to which entrepreneurs are confident about their own entrepreneurial skills to complete various tasks and projects*) critical for EE success within secondary school students in Zimbabwe. The next section deals with EE training for teachers.

### **3.4.3 Competency-Based Entrepreneurship Education Training for Teachers**

Lackeus (2015) identifies the key role of an EE teacher as a developer of entrepreneurial competencies. Aladejebi (2018) contends that entrepreneurship involves the change and learning that the individual entrepreneur experiences by interacting with the environment, hence learning and creating value are considered as the two main aspects of entrepreneurship. Lackeus 2015:10 adds that,

“Letting students try to create value to outside stakeholders will then result in the development of entrepreneurial competencies regardless of whether successful value creation is being achieved or not”.

A competence approach to teacher training is highly recommended for EE development within the teacher training programme in Zimbabwe. Alvos (2011) and Pantic & Wubbels (2010) both advocate that a competency-based approach to EE focuses on the development of set skills (competencies) which each teacher needs to acquire to be a competent EE teacher. Robinson & Mogliacci (2019) add that the underlying assumption of a competency-based approach to teacher training in EE is that for a teacher to be efficient, accountable and possess a certain set of professional competencies, there is a requirement to shift from traditional instruction towards an experiential learning methodology, using an action-oriented, mentoring and group-work approach to ensure greater learning effectiveness.

Pantic & Wubbels (2010: 696) identified four domains of teacher competencies that are critical in developing EE within the teacher training programmes in colleges as well for the qualified teachers already in schools teaching. These are,

1. values and child-rearing,
2. understanding of the education system,
3. subject knowledge and knowledge about the pedagogy and the curriculum,
4. and self-evaluation and professional development.

Values and child rearing are teaching elements that every teacher should know and if these are linked to EE, they create a knowledge base for teachers who are both in training and qualified to understand how to approach EE within the classroom setup. Understanding the

education system as well as the economic system of a nation are two critical factors each teacher teaching a secondary school child should know. These two factors will form the basis from which teachers will value EE as a subject within the Zimbabwean education system. The informal sector in Zimbabwe is now the country's largest employer as the economy has failed to absorb the many job seekers into formal employment (Ndofirei & Rambe, 2017), hence the motivating drive for the incorporation of EE in teacher training is to enable students who are currently in school to have a chance to grow and realise that they can start-up businesses without necessarily looking for employment.

Subject knowledge and knowledge about pedagogy (refer to section 3.2.2) and the curriculum are key factors that will drive EE development within the teacher training programme in Zimbabwe. Entrepreneurial competencies according to Sanchez (2011) are defined here as knowledge, skills and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation. Moberg (2014) advises that EE competencies consist of cognitive competencies (knowledge & skills) which are easy to teach and evaluate and non-cognitive competencies (attitudes) that are more difficult to evaluate and require learning-by-doing teaching practices. Such as the case with the Zimbabwean education system which Nani (2016) and Ndofirei (2016) laments to have continuously emphasised on high-stakes standardized testing, large-scale assessments and institutional ranking which has led to a focus on cognitive competencies, neglecting non-cognitive competencies. Young & Muller (2010) believe that this only leads to narrowing of the curriculum, teaching to the tests and a de-professionalization of teachers. A competency-based approach in the teaching of EE would really smoothen the process and allow the not-so-gifted and academically challenged students to thrive under EE.

However, there are numerous contestations about the definition of what it means to be a "good" teacher. Biesta (2017) asks who should define the set of competencies, and how they should be measured. According to Tiemensma and Rasmussen (2019), a competency-based approach to teacher training does not prescribe how student teachers learn to become teachers, but rather what they learn to become teachers. The content of EE for teachers is

defined by the set of valued competencies, and it is often based on the acquisition of both theoretical and practical or contextual professional knowledge.

Lilleväli & Marge (2017), suggest an EE competence model as a valid solution for the gradual development of competencies in teacher training having different elements of EE (e.g., learning outcomes and pedagogical approaches) on different types and stages of training for teachers. Thus, it makes EE more tangible, measurable and effective. According to Lackeus (2015), teacher training programmes need to include, or even model, pedagogical entrepreneurship at both theoretical and practical levels to achieve this. He recommends that practical activities should operationalise entrepreneurial approaches in both teacher training and students' experiences of such approaches in their practice periods in compulsory schooling (ibid.). The next section discusses EE as a transverse competence.

#### ***3.4.4 Entrepreneurship Education as A Transversal Competence***

Entrepreneurship education is taught in one of two ways: either as a key competence or as a specific business-related topic (European Commission, 2011ab). Traditionally, however, entrepreneurship has tended to be treated narrowly as a matter of how to set up and run a business, rather than more broadly as a set of transversal skills and attitudes (Gibb, 2011e). According to Leffler and Fark-Lundqvist (2014,) the transversal nature of EE means that it can take place in any subject and at any level of education. The structure of learning can be tailored to allow delivery through one (or more) of three approaches, namely, as a separate subject or course; integrated into subjects or courses; or as a cross-curricular activity involving students from multiple courses (UNESCO-UNEVOC, 2019).

Lackeus (2015) says that the approach to selecting one of these varies with every nation's education system, stages of development, key objectives, and national strategy. The approach taken especially in the Zimbabwean context will help in providing content, choice of methodology as well as the resources that will be needed for the teacher training programmes to succeed. These two approaches are discussed in the culminating sections, beginning with the embedding approach.

### **3.4.4.1 Embedding approach.**

Gibb (2008d:12) suggested that for EE to be embedded in the education system,

“it should be child-centred at primary level, subject centred at the secondary level, vocational centred in further education, and discipline centred at university”.

Henry (2020) argues that to change the mindset of the students that are taught, EE should be integrated in the curriculum, rather than only being offered as a standalone course. Leffler and Fark-Lundqvist (2014: 25) explain that,

“embedding EE in the formal educational system at all levels requires a strong commitment from the government in terms of policy and resources, as most schools, universities and training programmes are overseen by the government”.

Chu, Reynolds, Tavares, & Notari (2016) state that it is never too early to start exposing students to business and entrepreneurship. Perceptions and attitudes about entrepreneurship start at a young age. By the time that students reach secondary and higher education, it can be too late, particularly if they do not pursue further education or if they have developed negative perceptions about entrepreneurship.

Andrzejczyk (2017) asserts that EE’s primary purpose is to prepare students to live in the modern world where they understand the socio-economic processes that take place in it and shape the necessary skills and attitudes required in professional activity, including running one’s own business, EE provides that leverage as a subject (Kilar & Rachwał, 2019). Gibb (2011:10) however advises that,

“any successful process of embedding entrepreneurship education across all disciplines in all institutions will demand that it is seen not as a separate and distinct educational offer, but as a concept central to the delivery of effective learning in general”.

The position from extant literature offers the embedding EE in the curriculum as the best idea to take for a nation such as Zimbabwe which primarily does not have EE included in its secondary education curricula, if at all students are to fully understand key concepts involved. The next section discusses the cross-curricula approach.

#### **3.4.4.2 Cross-curricular approach**

Hayes (2010: 382) defined cross-curricular teaching as the combination of subjects,

“within a project or thematic work, incorporating a wide range of sources, related concepts and flexible schedules”.

The European Union (2014c) posits that the cross-curricular approach is usually combined with the integration of EE into other subjects in most countries. A cross-curricular approach can be taken in two forms,

1. it can be integrated into existing subjects,
2. or it can be introduced as a separate curriculum subject.

Gustafsson-Pesonen & Remes, (2012) concur that for nations who are introducing EE as a subject for the first time the idea of introducing it as a subject in the curricula will provide much leverage not only to the students who are the recipients of the content but also to the teachers who have to be specifically trained to teach the EE. Arasti, Zandi & Talebi (2012) believe that EE benefits students from all socioeconomic backgrounds because it teaches kids to think outside the box and nurtures unconventional talents and skills. The Tom, Martin and Associates Report (2016) states that EE can be taught as a separate subject, typically from the upper secondary level onwards, where it has a focus on learning the skills and know-how of setting up and running a business. Deveci & Cepni (2017) state that some countries teach EE as a separate subject at the lower secondary level, which means that tailor-made solutions have to be developed for every individual setting. Hence, as a subject, if taught would immensely benefit Zimbabwean secondary education students.



### **3.4.5 Conducive Environments to Foster Entrepreneurship Development Programmes**

According to Welter & Smallbone (2011), entrepreneurial behaviour has to be interpreted according to the presumptions of each context where it occurs. Mwasalwiba (2010:6) describes a learning environment as an,

“the entirety of the learning-related physical environment, psychological factors and social relationships”.

Despite various definitions about the basic features and elements of entrepreneurship (Moroz & Hindle, 2011; Mwasalwiba, 2010; Seikkula-Leino, 2011; Seikkula-Leino, Ruskovaara, Ikavalko & Rytola, 2010), it is widely acknowledged that EE learning environments should enable the learner’s personal development (Jones, 2010). Harkema & Schout (2012) emphasise the flexibility of the EE learning environment in handling learners’ needs. In addition, Hagg & Peltonen (2014) state that teachers should arrange alternatives for learners, both in content and activities. Therefore, Blenker, Korsgaard & Neergaard (2011) encourage that the learning environment for EE should be open to everyone and respect all kinds of personalities, rather than simply searching for entrepreneurial types among the pupils.

When arranging the entrepreneurial learning environment, the teacher is presumed to give learners a great deal of freedom (Gibb, 2012f). When emphasising different learners’ rights to individual learning paths, Mark, Hietanen & Tompuri (2010) propose that the teacher must be aware of and weigh the risks and the benefits. For example, in giving each learner an equal opportunity to learn through experimentation, the teacher must be able to recognise different options, tolerate uncertainty, deal with changes, and solve problems creatively.

Gibb (2012f) posits that in educational contexts, recognising each learner’s proximal zone advocated by Vygotsky (1997) is critical. He advises that challenges for the teacher begin when they try to create a learning environment that encourages diverse learners to learn by doing, to learn through mistakes, to take risks, and to solve problems creatively – that is, to learn through entrepreneurial behaviour. s. In addition, they remind teachers to arrange

alternatives for learners, both in content and activities. However, it is also important that teachers keep in mind the goal at each level and for each form of education and are also aware of the values behind their practical solutions.

### **3.5 Factors that lead to the Successful Implementation of Entrepreneurship Education Training for Trainee Teachers.**

According to Lackeus (2015), the effectiveness of EE within teacher education depends solely on three key factors namely resources, entrepreneurship education policy and partnership and collaboration. These factors are discussed in this section to provide the distinctive nature of why these are critical in the Zimbabwean context.

#### **3.5.1 Resources**

Nieman and Nieuwenhuizen, (2008) posit that most new jobs arise from entrepreneurial small firms that are formed due to rampant unemployment challenges in many communities and as such teacher training programmes in colleges need to be geared towards creating teachers who are equipped to train students in this knowledge and skills gap. The government of Zimbabwe's new dispensation drive is primarily economic and is driven by the shift towards a post-Fordist economy (*one in which the dominant production processes, strategies, and paradigms within the economy are characterized by high levels of product innovation, process variability, and labour responsibility*), aimed at developing an entrepreneurial culture oriented to job creation. It would be imperative that resources such as EE innovation hubs, start-up shops, know your business (KAB) hubs that involve teachers through the entrepreneurial process be set up as bases from which they can take off from before meeting students in schools.

However, many scholars (Dodd & Hynes, 2012; Jensen & Haara, 2019; Mukorera & Mahadea, 2014) have mentioned a lack of these resources in teachers' training. Kothari and Handscombe (2007) describe how teachers need support programmes to create an entrepreneurial organisation and be able to design, organise, and deliver novel learning

opportunities for students. Jones and Iredale (2010) state that neither excellent nor poor entrepreneurship educators can support the development of enterprising students if the curriculum is too restricted. There is a critical need within the teacher training colleges in Zimbabwe to establish programmes and resource material for EE support.

Policymakers worldwide promote the development of enterprise education, and some of the efforts have been supported with significant funding (Jones & Iredale, 2010). However, Pittaway and Cope (2007: 499-450) stress that there is limited evidence on the outputs that have been created and state,

“It seems clear that significant funds are flowing into promoting and developing entrepreneurship education but that much of the investment is founded on rather limited evidence... governments investing in this [entrepreneurship education] area need also to invest in research examining entrepreneurship education to improve the evidence base, to evaluate the impact of interventions and thereby have a clearer idea of what policies might work more effectively in which contexts”.

Rae (2011) points to the crucial role of decision-makers in allocating funding for institutional, regional, and national levels. In summary,

“Entrepreneurship educators need professional development and more teaching resources” (Rae, 2011:24).

EE practices, according to Birdthistle Hynes & Fleming (2007), need extra funding for schools to have the time, resources and trained, motivated teachers.” Matlay (2008:11) opines that,

“Not only does entrepreneurship education require a different set of instructional skill-sets, but it is labour intensive and costly, and very different from the traditional approach to education and learning”.

In summary, appropriate EE resources are a prerequisite for the successful implementation of EE within the teacher training programmes. The resources in end support teachers’

practical learning experience, allowing them to understand and be fully engaged in the real business world. The next factor for discussion is the entrepreneurship policy.

### ***3.5.2 Entrepreneurship policy***

Entrepreneurship policy without a doubt should be made available for the secondary school education system in Zimbabwe aimed at equipping students to be able to create their own businesses as soon they complete formal education. Relevant teacher training is a key to successfully implementing EE in teaching and should therefore be policy. Certainly, the growth and development of a country's economy is possible through policy formulated towards entrepreneurial activities and its education (Mwasalwiba, 2010). With a policy directed towards EE within the secondary education system, there is much a nation can benefit from as proposed by Akpan, Effiong & Ele (2012:103) who insist that there is,

“improved performance of the existing economy, to reduce the learning period for one to participate fully in the business environment, to help people develop their capacities so that their economy can meet most, if not all, its future requirements for the economy”.

EE policy within the teacher training colleges in Zimbabwe would create well-qualified teachers to educate and train the prospective entrepreneurs in the country. The next section discusses partnerships and collaboration.

### ***3.5.3 Partnerships and collaboration***

Gibb (2012f) suggests that schools could take advantage of building partnership networks with stakeholders, which could both broaden the school's intellectual base and the stakeholders could act as sponsors. In turn, Jones and Iredale (2010:9) describe the case in the UK:

Partnerships between education and business have been encouraged by the government as they are seen to offer opportunities to make education more

relevant to life and work, to raise standards and levels of attainment, to raise enterprise awareness and business understanding amongst teachers and students, and to inform and develop advice and counselling so that individuals are better placed to build on and use their skills.

Employers are also encouraged to deepen their links with schools, colleges and universities (Chinhara & Namhla, 2020). More effective education-business collaboration and mutual understanding should be promoted by developing better two-way contacts, which benefit both education and industry, and involve employers more centrally in young people's education. As a useful resource, Dickson, Solomon & Weaver (2008) mention different support organisations. They suggest that support organisations encourage teachers to adopt new processes and innovations known to provide positive outcomes which would ultimately develop teacher's entrepreneurial knowledge, skills and entrepreneurial mindsets. If teachers within colleges understand how industry functions and what the economy requires in terms of manpower and development, they will understand what they will have to do and reshape, reconstruct teaching materials to suit the nation's requirements. The common understanding developed through such partnerships is key in steering economic development within an economy (Acs, et al., 2016).

### **3.6 CHAPTER SUMMARY**

The success of any EE programme within a nation depends on the role of the teacher in the entrepreneurial process. Teacher competence and professionalism play an important role in the success of student learning. Other nations around the world have made significant progress towards developing EE programmes beginning as early as a primary school with some taking compulsory approaches towards the teaching and learning of EE. Whilst this has brought about huge economic gains for these countries, Zimbabwe is still lagging behind both in its approach as well policy on EE particularly in the secondary school education system.

Definitions of the entrepreneur, entrepreneurship and entrepreneurship education were analysed to clear any ambiguity towards meaning and relationship. The importance of EE, its

teaching methodologies and conducive environments within the Zimbabwean context were discussed to critically establish what works for Zimbabwe. Resources, entrepreneurship policy and partnership and collaboration were factors that were provided as contributing towards the success of EE within the teacher training programmes in Zimbabwe. The next chapter examines the success of entrepreneurship in the secondary school education system.

## **CHAPTER FOUR: SUCCESS OF ENTREPRENEURSHIP IN SECONDARY SCHOOL EDUCATION SYSTEM**

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### **4.1 INTRODUCTION**

Chapter three dealt with the current status of entrepreneurship education in the secondary school education system vis-à-vis the international community. Several factors, such as professional development programmes, pedagogical entrepreneurship education in teacher education, teaching methods, consideration for entrepreneurship in teacher training, and conducive environments in teacher training, were seen as vital in enhancing the status of entrepreneurship education in secondary schools.

Chapter four reviews the literature that is aligned to the research question 2 on whether entrepreneurship can be taught successfully to secondary school students.

The next section draws from four components of Lackeus, Lundqvist & Middleton (2013) action-based entrepreneurship education, which is central to achieving progression in entrepreneurship education in the secondary school education system globally. The components are the following:

1. Can entrepreneurship be taught?
2. The role and significance of EE on career readiness and in bridging the gap between education and work.
3. The mismatch gap between the education sector and industry.
4. Factors that support the integration of entrepreneurship education.

### **4.2 SUCCESS OF ENTREPRENEURSHIP IN THE SECONDARY SCHOOL EDUCATION SYSTEM**

The question of whether entrepreneurship can be taught has increasingly gained interest from researchers and scholars over the years (Daley, 2013; Lackéus, 2015; Obschonka & Stuetzer, 2017) raising some notions as to the ideas that entrepreneurship is a myth when

others say it is a reality (Chen, Chang & Lo, 2015; Frederick & Kuratko, 2010; Linan & Fayolle, 2015). The role and significance of career readiness in bridging the gap between education and workforce preparation is key to understanding entrepreneurship education success in the secondary school education system (Carnevale, Smith & Strohl, 2012; Stetser & Stillwell, 2014; Sparks & Malkus, 2013).

According to Bartlet (2013), entrepreneurship education leverages skills mismatch gaps that exist between the industry and the education sector. The success of entrepreneurship in secondary schools is related directly to factors that support EE and how each nation deals with the ones that inhibit it (Bliemel, 2014). Related empirical studies by Kuckertz and Berger (2017), Kozlinska (2011), and Maritz and Brown (2013) point to the fact that the general understanding of the concept of entrepreneurship remains key in determining the success of entrepreneurship education in most developing countries. These scholars created a base on which the discourse regarding the success of entrepreneurship in secondary school students hinges. For instance, successful entrepreneurs are people who strongly believe in their judgments and they have high social perceptions and ability of successful interaction (Gibb, 2011). The next section analyses the notion of whether entrepreneurs are born or are made.

#### ***4.2.1 Are Entrepreneurs Born or Made - Unbundling the Myth***

A “common and much-debated question the world over is whether entrepreneurs are born or made (Daley 2013; Lackéus, 2015; Obschonka & Stuetzer, 2017). Mariotti and Glakin (2010) explain that entrepreneurs are born risk-takers, they are optimistic and creative, and they can forge connections between unrelated events and turn them into a business.” Likewise, Nabi, Linan, Fayolle & Kruger (2017) state that entrepreneurs are born, but concurrently they argue that they are created by their individual experiences, as they grow and learn from their environment, indicating that entrepreneurship is a “learned phenomenon”.

Dailey (2013) suggests that genes do not only “influence whether a person will start a business; they may even determine how much money a person will earn. In other words, some people are born to be alpha wolves, and the rest will work in the mailroom.” Support for the idea that entrepreneurs are born as a central theme can also be found in the



description by Anderson, Dodd & Jack (2010: 263) of whether entrepreneurs are born, not made,

“Of course, anyone can maximize any skillset, but it does not necessarily make them successful at it. I could maximize my singing with vocal lessons, but I will still always just be a mediocre singer. To win at the very top of the chain, to make it big in the business world and any arena, you have to be born with talent”.

Contrary to these propositions, Kobia and Sikalieh (2010) argues that “even if someone was born with entrepreneurial characteristics, there is no certainty that they will grow to be a successful entrepreneur. After all, there are some other recognized characteristics, such as opportunity recognition, people management skills, a firm focus, knowledge of capital strategies and financial know-how, which they will require to become an entrepreneur.”

Kanonuhwa, Rungani & Chimucheka (2018) assert that intentions are crucial for the development of interactive models to explain entrepreneurial behaviour as a function of both the person and environmental conditions. Kanonuhwa et al. (2018) further state that a person aiming for entrepreneurial success will need to become more receptive towards entrepreneurship before they can begin their business career; that is something education or their environment can help with. In the same vein, Vyakarnam (2003) concludes that entrepreneurs are made because they learn and grasp their skills as well as the technical know-how from a formal (educational) or informal (surrounding/family) environment.

Since entrepreneurial research began, there has been considerable debate as to what personal attributes are required for a person to become an entrepreneur (Bird, 2015; Linan & Fayolle, 2015; Zhao et al., 2010). Lui, Wei & Sha (2019) posit that entrepreneurship research has been attributed to the “innate character of the entrepreneur”. Whereas Bygrave and Zacharakis (2011) in putting across the idea whether of whether an entrepreneur is born or taught, highlight that there is no set of behavioural attributes that allow us to separate entrepreneurs from non-entrepreneurs based on the fact that anybody who wishes to be successful needs to achieve, and these achievement elements are found in all successful people, not just entrepreneurs.

From a theoretical point of view, Abdullah, Hadi & Dana (2018) argue that entrepreneurship must be linked to the Kirznerian literature (see Chapter two) that ascertains that entrepreneurs are made and entrepreneurship can be taught. This approach is vested in Kirzner's (1997) description of entrepreneurship as the identification of profit opportunities, without actually creating the opportunity itself.

Gibb (2012f) concurs with Schumpeter's (1934) economic development theory that some people are innately more entrepreneurial than others but upholds an earlier argument that all individuals have some entrepreneurial characteristics (Gibb, 2010d). According to Gibb (2011e), the factor deciding whether these characteristics are developed or not relates to the design of both environments and enterprises that will either stimulate or suppress entrepreneurial behavior.

Hayton and Cacciotti (2013) maintain that the only real difference between the entrepreneur and the non-entrepreneur is the entrepreneur's desire to be in control of his/her destiny, suggesting that he/she has a "higher internal locus of control". Burns (2005) insists, "Entrepreneurs are both born and made. They have certain personal character traits that they may have been born with, but they are also shaped by their history and experience of life – their background – as well as the culture of the society they are brought up in."

Chell (2013) contends that entrepreneurs can be a mix of both, as both born and taught skills contribute to entrepreneurship, and what may determine their entrepreneurial success is a balance between the traits they are born with and the skills they acquire in life. Daley (2013) states that, as per genetic literature, up to 60% of the critical personality characteristics of humans are heritable. Therefore, some of the recognized entrepreneurial characteristics, such as risk-taking, ambiguity, tolerance, optimism, confidence, the ability to find resources and solve problems, appear to be traits that one is born with. This, according to Zhao et al. (2010), further demonstrates that a significant amount of entrepreneurial conduct is genetically determined.

McMullen and Shepherd (2006) argue that entrepreneurial intention has been linked to the ability to withstand ambiguous situations. Other traits studied were self-confidence, coping,

and problem-solving. The research showed that entrepreneurs are more self-confident and use strategies for coping and problem-solving more effectively (Chen, Chang & Lo, 2015; Linan & Fayolle, 2015). Several studies have concluded that people with higher scores on emotional intelligence are more creative and proactive and show a higher level of entrepreneurial intention (Henry, 2020; Booysen, 2015; Van der Meer, Farrington, Venter & Schrage, 2012).

Moreover, studies have shown that entrepreneurial education exerts a lasting influence over whether people become entrepreneurs (Daley, 2013; Shane & Venkataraman, 2010). Some scholars suggest that entrepreneurship, or at least some aspects of entrepreneurship, can be taught successfully. In general, education and entrepreneurship education has a positive influence on the decision to become an entrepreneur, based on the outcome of some empirical studies indicating that educational programmes can positively influence entrepreneurial attributes (Anderson et al., 2010; Herrington, Kew & Kew, 2010, 2010; Iakovleva, Kolvereid & Stephan, 2011; Muller, 2011).

If the perspective that entrepreneurs are born with skills and abilities is abandoned, one must ask how the skills are gained (Lackeus, 2015). One explanation is that entrepreneurs “learn as they go”, with entrepreneurs being more successful and effective in their second and third start-up (Booyesen, 2015). Bygrave and Zacharakis (2011) offer a plausible reason for this, as the learned skill can be to identify and evaluate problems.

Hence, it can be established that there is no single set of characteristics and skills that will guarantee entrepreneurial success. One will need to have a proper mix of skills and characteristics, according to the respective situations, to be proven a true entrepreneur (Changwong, Sukkamart, & Sisan, 2019).

Furthermore, apart from the mix of inborn and learned traits, an entrepreneur might also possess certain natural talents that need to be honed to raise the likelihood of venture success (Allahar & Brathwaite, 2017). These talents fall somewhere in between the born and made traits. Even though they may be present since birth, they need to be sharpened by training or experience before they can come into full effect (UNESCO-UNEVOC, 2019). An

example of these would-be leadership qualities. The study takes up a proposition that an entrepreneur must possess leadership skills and though they could be a natural leader, these skills need to be honed through experience and proper training or support so that they can be utilized to create start-ups that will generate income after formal education. The next section is equally intriguing, as it attempts to unbundle a long-time dilemma in research on whether entrepreneurship is a myth or a reality.

#### ***4.2.2 The Dilemma Behind Entrepreneurship: Is Entrepreneurship Myth or Reality?***

Education proponents argue that if you can teach people general skills, which are useful in business, you can also instill lessons about running their own companies (Kuratko, 2016). Proponents in the field of entrepreneurship have improved by leaps and bounds in recent years, so educators can do much more to help entrepreneurs avoid common problems (Chen, Chang & Lo, 2015; Fayolle, Kyro & Linan, 2015).

Zaidatol and Hisyamuddin (2010) maintain that exposure to entrepreneurship at a young age is one of the important aspects needed to enhance entrepreneurship education. Regardless of the course they choose, students still acquire benefits from being nurtured in entrepreneurship at a young age through innovative problem-solving skills, the ability to adapt to change, and greater creativity. Other researchers have indicated that students' levels of entrepreneurial self-efficacy are high when taught entrepreneurship; thus, the tendency to become an entrepreneur becomes greater (Johannisson, 2010; Naude, 2017).

Neck and Corbett (2018) suggest that early aspirations towards entrepreneurship can be formed at the secondary education level, although every country views entrepreneurial activity from different perspectives depending on its culture, encouragement for entrepreneurs, and the primary objective to generate employment opportunities through self-employment. The European Commission (2016) advocates that an increased level of entrepreneurship can be achieved through education, particularly EE. Bygrave and Zacharakis (2011) proposed engaging students from primary school level education with knowledge in the field of entrepreneurship.

According to Omoruyi, Olamide, Gomolemo & Donath (2017), studies have proved that entrepreneurs can be taught to stimulate entrepreneurial activity and performance (DeJaeghere & Baxter, 2014; Kirby & Ibrahim, 2011). Gurol and Atsan (2006) assert that this creation of entrepreneurs is partially dependent on the creation and advancement of efficient EE programmes. What is important, though, is that EE from an early age has the potential to develop an entrepreneurial product (to instill an entrepreneurial attitude), whereas Busenitz, Plummer, Klotz, Shahzad & Rhoads (2014) say that it is formal education that is best suited to refine the entrepreneurial process (to develop skills that will support entrepreneurial action). Contrary to these views, Wasserman (2017) argues that just as there are elements of engineering, medicine, and law that cannot be taught, these unteachable elements involve people skills: for instance, how salespeople can figure out how to get to a "yes" from potential customers after hearing "no" after "no". Entrepreneurship cannot be different from these elements.

Mackendrick (2013) views entrepreneurship as a state of mind and a passion to fill an unmet need while building one's success; something that cannot be bottled and often is difficult to replicate. Mackendrick (2013) asserts that at the core of entrepreneurship is the idea of individualism. Individualism is not an attribute that is encouraged in the classroom setting, and it never will be because, in an environment that cultivates the growth of individuals, there is no way to appropriately grade each student.

“Are you supposed to give one kid an ‘A’ because his idea and the business plan worked, but then you give another kid an ‘F’ because theirs didn’t? This is why teaching entrepreneurship in the classroom makes no sense” (Mackendrick, 2013: 124).

Research conducted by Kirby, Guerrero & Urbano (2011) on youths aged 15 to 21 years supported the idea that youths tend to have a lower propensity to become entrepreneurs and performed lower in other measures, which indicates that institutions have challenges in creating entrepreneurs (Kirby, 2004). Previous studies (Anderson, Hinz & Matus, 2017; Braunerhjelm, 2010; Mitchell, 2014) reported that the primary challenges faced by

entrepreneurship educators are the efforts needed to attract and develop natural talents and entrepreneurial ability. These factors, according to Lynch, Kamovich, Longva & Steinert (2019), have given rise to continuous disputes among scholars/intellectuals about the need for and importance of applying entrepreneurship education to students at the school level. Hwang and Horowitz (2012:12) opine,

“Entrepreneurship cannot be taught in a regular classroom any more than surfing can. To learn it, you have to get your feet wet in the real world. The real world is more uncertain than any classroom lesson could be, the real world is indeed messy.”

Lackeus (2015:53) argues against Hwang and Horowitz’s view, stating that,

“education has evolved far beyond the basic classroom experience. Advancements have been made in terms of capability, modifying the topics taught, and the methods in which students are taught”.

Mkhize (2010:10), on the other hand, insists that “with the current boom in the start-up world and the birth of entrepreneurial ecosystems, secondary educational institutes, and universities the world over have not only recognized entrepreneurial capability but responded with new teachings and methodologies specially customized and designed to meet the requirements of teaching entrepreneurship education in a classroom.”

Frederick and Kuratko (2010) suggest that one aspect that separates entrepreneurs from employees is that entrepreneurs are risk-takers and the classroom cannot manufacture risk-takers. Draycott and Rae (2011) advance the notion that an EE system serves the purpose of manufacturing like-minded clones with the same attributes and mentalities, which will be detrimental to innovation, as all entrepreneurs produced from that system will have the same thought processes and approach to business. Jones and Iredale (2010:14) and Leffler (2014:156) rebut Draycott and Rae’s (2011) views on the separation of entrepreneurs and employees, and maintain,

“One cannot understand something until you have been taught it; getting college-age entrepreneurs and their mentors and professors in public high school classrooms could be a big win across the board. Those wins could be compounded if those adopted programmes were in schools with high populations of disadvantaged students”.

In Frederick and Kuratko’s (2010) view, taking students into the real classroom set-up could open their eyes to the power of entrepreneurship and the benefits of school – which is at least part of what the new schools’ programmes aim to do. By investing more, earlier in the entrepreneurship process, schools may also find that their students are better prepared and more successful.

Wiklund, Davidson, Audretsch, & Karlsson (2011) advocate that the important lessons of entrepreneurship can be learned and that learning about entrepreneurship early can have major life-long benefits, including self-sufficiency, resiliency and creative problem-solving. Shahani (2017:123) posits that,

“Entrepreneurship, unlike other subjects, has both rudiments of art and science”; hence, “creativity, risk-taking, confidence, leadership and networking all fall under the parameters of art, while strategic planning, business acumen, marketing, accounting, management, and finance fall under the discipline of science”.

Although Herrington, Kew & Kew (2010) caution against viewing entrepreneurship as the solution to all of society’s social ills, Anderson et al. (2010) argue that it seems to offer a unique solution to problems associated with the “increased pace and turbulence of social and economic change”. A major concern for Zimbabwe is the lack of job creation, resulting in high levels of unemployment. Swanepoel, Strydom & Nieuwenhuizen (2010) assert that high levels of unemployment emphasize the urgent need for entrepreneurial development.

Several authors (Wiklund et al., 2011; Davidson, 2015; Shane & Venkataraman, 2011) argue that entrepreneurship is more of an attitude, a set of skills, a practice, and a discipline that

can be acquired through all the levels of an education system and honed at the university level. More and more countries have included training for entrepreneurship in their curricula and education systems (Aladejebi, 2018; Alvarez & Barney, 2014). Given the inability of the economy in Zimbabwe to absorb this unemployment dilemma and meet all job demands, promoting entrepreneurship as a possible career path for students remains an alternative. There is no doubt that societies develop and evolve through the importance they place on their educational system as the backbone of all progress.

The different views from researchers on how they view entrepreneurship can only lead to the fact that entrepreneurship exists as a reality and a function of economic development, which can be learned thereby distinguishing it clearly as reality and not a myth. The knowledge and skills involved in EE can be imparted to students enabling them to change behaviour and practice meaning that entrepreneurship is considered a discipline that can be acquired through any levels of education ruling it out of being labeled a myth. As a career choice, the process of innovation, creativity, risk-taking problem-solving are competencies that EE imparts to students through the education process allowing students to be empowered with options to choose from.

Accepting these perspectives, in theory, means that anyone can become an entrepreneur or entrepreneurial by learning and exercising the necessary knowledge, skills, and processual thinking through EE. It also confirms that entrepreneurship can be taught successfully in Zimbabwe. The adoption of EE within the education system fits well with the economic need in Zimbabwe for more entrepreneurial people who can steer economic development and can cope with the fast-paced, inconstant, uncertain world of today, which sees change as the natural state (Johannisson, 2010; Jones & Iredale, 2013). The next section discusses EE outcomes.

### **4.3 Outcomes of Entrepreneurship Education.**

The emergence of EE in Europe, USA, Asia, Sub-Saharan Africa particularly in primary and secondary school education (*refer to chapter 3 section 3,2*) has fostered entrepreneurial intentions and thus steering entrepreneurial activity (Kautonen, van Gelderen & Fink, 2015;



Peterman and Kennedy, 2003; Rauch and Hulsink, 2014; Sánchez, 2013). Walter & Block (2013) asserts that adopting EE within education curricula can signal the desirability of entrepreneurship and therefore sensitize students to entrepreneurial careers. In fact, most studies have indicated that taking entrepreneurship courses (e.g., Athayde, 2009; Sánchez, 2013; Souitaris, Stefania, & Andreas, 2007.) or their mere existence (Walter and Dohse, 2012) shapes interest in entrepreneurial careers. The next chapters draw on the socio-economic perspective which emphasis on economic outcomes of EE within an education system.

#### ***4.3.1 Leveraging EE - Career readiness and bridging the gap between education and workforce preparation.***

The questions of whether or not students acquire the knowledge and skills needed for life school today, how the cost of tertiary education is rising, and which students gain access to higher education, all contribute to the complex picture which seeks to ask the question on the relevance of present-day education. At the same time, employment projections indicate a growing need for a better-educated and highly skilled workforce capable of seeing opportunities where others do not (Alvarez & Barney, 2014; Al-Awlaqi, Aamer & Habtoor, 2018; Brewer, 2013).

The growing concern even in Zimbabwe where students have great challenges in identifying what they want to do as a career choice due to a lack of opportunities within the job market provides disastrous consequences for the Zimbabwean economy (British Council, 2020). A failure by a nation to have its human resource capacity (skilled workforce) contributing towards developing the economy creates challenges for future generations as there will fewer opportunities created.

According to Yang (2008), practical EE can maximize the accumulation of experience and understanding of the entrepreneurial process; it enables the development of students through the various phases of EE (Ahmed & Nwankwo, 2013); it may decrease both start-up turbulence and failures (Matlay, 2008: 393); and it increases interest and positive attitudes towards entrepreneurship among students (Alvarez, 2005) thereby increasing students chances of seeing the greater opportunities their country has. In a way, the demand

requirements for EE are characterized as awareness for entrepreneurial opportunity, understanding and enrichment of personal capability, and most likely the establishment of a new small business (Anderson & Jack, 2008) which gives students more control over selecting career choices in the end.

Booyesen (2015) concur that employer engagement through EE is regarded as a lever that provides students with a continuum of experiential learning which links them to academic, technical, workplace, content, and skills. Bokhari (2015) related to evidence indicating that the creation and maintenance of social networks in support of new business development enables socially deprived individuals to gain the confidence and skills required for the business.

Meeder and Pawlowski (2019) propose career-connected learning for students in secondary school education. If students are exposed to some aspect of the world of work during the EE learning process, it might be a bridge to academic content, such as teaching mathematics skills using examples from the construction industry. Alvos (2011) suggests that it might involve teaching essential work (and life) skills, such as teamwork and planning, by having students participate in a group project using project management tools.

Deveci and Cepni (2017) state that it could involve collaboration with partners from the business community, such as local employers hosting site visits or serving as project mentors. The relevance and community engagement make learning relevant and improves both academic and life outcomes.

Students participating in EE career-connected learning are more likely to pursue – and complete – a post-secondary education. Meeder & Pawlowski (2019) argue that connecting instruction to the real world does not mean students are being prepared for a specific job. However, it does allow students to be exposed to different roles different industries play in developing the economy giving them a chance to find and pursue opportunities that align with their capabilities, strengths and passions. The next section how EE unbundles the skills mismatch between the industry and the education sector.

### ***4.3.2 Skills mismatch between industry and the education sector***

The disconnect that researchers have identified that exist between what the country needs as drivers of economic development in terms of its human resource and what the education system needs to do to create these potential drivers (Alam & de Diego, 2019; Blenker, Elmholdt, Frederiksen, Korsg, 2014; European Commission, 2015c; Lackeus, 2015) can be leveraged through a comprehensive and consistent EE program beginning from primary school up to tertiary education as proposed by (Blimpo & Pugatch, 2019; Bikse, et al., 2014; Mwasalwiba, 2010).

Sondergaard & Murthi, (2012) advocate that practical EE training of students in schools can promote the acquisition of requisite skills, autonomy, innovation, creativity and risk-taking that are needed in most economies today. Blimpo & Pugatch, (2019) however lament the poor quality and irrelevance of much education provision within Sub Saharan Africa which has been attributed to the failure of education systems to meet the demands both of industry as well as the economy. Frederick & Kuratko (2010) blames it on inherited curricula which is unsuitable in the new occupations that have emerged in the service sectors and high technology industries. Kanter (2013) cited poor preparation of high school students before entering colleges as one of the main causes of the mismatch between open jobs and skills. Luebker (2008) opines that skills produced by the education system are often no longer in demand in the labour market. A study conducted by Dvoulety & Orel (2019) of the development of skills mismatches in the transition countries of Eastern Europe and Central Asia found that even when people hold the correct qualifications for the occupation, they might not necessarily have the skills needed to effectively perform the job and satisfy employer expectations.

For a nation such as Zimbabwe, the recent curriculum developments and changes have only included practical subjects and not EE putting more emphasis on tests and assessments over skill-related options particularly for students in secondary school. This continued exercise has created a bottlenecked education system that only supports students who have a minimum required pass rate thereby creating very few opportunities for those who do not (British Council, 2020; Nani 2016).

In Europe, skill mismatches and skill shortages have become a priority concern in many countries, especially since the onset of the global economic crisis and its intensification through the crisis in the Eurozone (Bartlett, 2013; World Bank, 2011). Thus, the efficiency with which human resources are developed in the education system and are used on the labour market must be a priority for policymakers in Zimbabwe. The process of matching skilled workers to the demands of employers as well as the economy is central to this concern.

Cedefop (2015) proposes two crucial scenarios for economic development to take place, firstly the implementation of new occupational or qualification standards which is a crucial step towards matching skills demand of the (future) and the labour market and secondly establishing EE within education curricula comprising of two particular sets of representatives, education and industry, one approach also recommended by the European Union (2014). Furthermore, for education to lead to jobs, employers should be involved (Kanter, 2013), and for companies to make an impact, partnerships with universities to help prepare graduates for the workplace should be established (Freeman, 2013). Employers should be involved in curriculum development so that all the necessary competencies are jointly identified and implemented in the curriculum. According to Spiegel (2017:13),

“Businesses can communicate their immediate and anticipated needs so that educational institutions can develop programs to train students for the necessary skills”.

Because secondary school students are the future workforce, they must have a strong educational background. While in school, they should be prepared to engage successfully in an academic experience that will help prepare them for their future careers.

Cedefop (2015) suggests that in the complex field of combating skill mismatch, an important factor for the success of policies and instruments is the involvement of stakeholders: the government, the education sector, social partners, and employers. These have to be involved not only at the national but also at the regional/local and/or sectoral levels. The importance

of involving labour market stakeholders has become a key element of success in almost all instruments (European Commission, 2011). of implementation.

Allen et al. (2013) provide the Dutch example, which indicates how employers were involved in building local mobility centres, making employers in sectors with shortages the problem owners and, thus, part of developing a solution. Germany adopted a thorough Skilled Workers Strategy in 2011, which explored every avenue to close the skills gap nationwide along five specific paths: labour market mobilisation and safeguarding of jobs; combining family and career; education for all from day one; skills development: initial and further training; integration and qualified immigration (Fuerlinger, Fandl & Funke, 2015).

Cedefop (2015) advocates for an overarching national skills strategy that can contribute to the integration of policy instruments from various policy fields, ranging from unemployment policies, education and training to national competitiveness strategies. Such broader policy programmes have the potential to provide guidance, based on which more specific policy instruments can be developed. The next section examines the acquisition of skills as an outcome of EE.

#### ***4.3.3 Desirability Towards Entrepreneurial Careers***

In promoting EE in Europe, the European Commission (2011b:11) argued that,

"Students feel more confident about setting up their own business as they can now test their own business ideas in an educational, supportive environment".

In particular, the awareness of entrepreneurship as an alternative career path to paid employment is assumed to be influenced by EE programs which provide students with skills needed to start and successfully run their own businesses (Acs, Astebro, Audretsch & Robinson, 2016).

Von Graevenitz, Harhoff & Weber (2010:145) in a study using 196 students found that,

“EE provides individuals with signals about their entrepreneurial ability, resulting in ‘sorting’, some students were well suited for entrepreneurship, while others that they were not”.

Oosterbeek, van Praag, Ijsselstein (2010) investigating the impact of the Junior Achievement Young Enterprise student mini-company (SMC) program with 250 students at the Dutch vocational college concluded that EE does not necessarily stimulate the entrepreneurial intentions and skills of students. They indicated that discouraging effects may be obtained from students who will have realised their true potential. While Alavarez, et al., (2014) argued against Oosterbeek et al., (2010) views and concluded that EE courses inspired and increased student's entrepreneurial intentions after researching entrepreneurial intention with 500 high school students.

According to the European Commission (2015c), 99% of all business in Europe, 85% of new jobs and two-thirds of total employment in the private sector are a directed result of entrepreneurial activity which is primarily driven by policy to embed EE practices within education making entrepreneurial activity a backbone of Europe. Wardana, Narmaditya, Wibowo, Mahendr, Wibowo, Harwida & Rohman (2020) in their study on the impact of EE on students’ entrepreneurial intentions and career choices confirmed that EE can influence entrepreneurial self-efficacy, entrepreneurial attitude and entrepreneurial mindset.

This provides the argument that EE programmes within education curricula can be used not only as a source of education for aspiring student entrepreneurs but can also be used a basis for new business ideas. Ideas can be tested that have a positive effect on the development of the economy leading to potentially viable business opportunities from which students can choose their careers from.

#### **4.4 CHAPTER SUMMARY**

The success of entrepreneurship within a given nation hinges on whether EE can be taught. Extant literature analysed in this chapter indicated that entrepreneurship can be taught and that it is not a myth but a true reality. The emergence of EE within the education curricula as a force that drives entrepreneurial activity through knowledge and skills spillovers has gained momentum with different researchers recognising that its adoption brings with it economic outcomes. The adoption of EE within education systems particularly secondary education is considered to leverage the mismatch gap that exists between industry and the education system. EE is seen as contributing towards students choosing entrepreneurial careers due to the exposure it gives to students. The next chapter analyses entrepreneurship skills to enter self-employment.

## CHAPTER FIVE: STUDENT ENTREPRENEURSHIP SKILLS AND SELF EMPLOYMENT

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### 5.1 INTRODUCTION

Chapter five is the last literature review chapter of the three (*chapter 3-5*) in the study and addresses research question 3:

To determine the entrepreneurial skills required for the secondary school curriculum for students to be able to enter self-employment.

The chapter provides an eclectic view of entrepreneurship skills that inevitably promote self-employment using the Entrepreneurial Effectiveness Model (EEM) advocated by Rae (2011), which when used in developing entrepreneurship skills within the education system, can assist learners to creatively identify new frontiers that enable them to be job-creators and self-reliant. An understanding of entrepreneurship skills and self-employment provides a much wider scope for the study.

### 5.2 ENTREPRENEURSHIP SKILLS AND SELF EMPLOYMENT

The most important questions that run in every person's mind when it comes to business start-up and running a business effectively is whether they can rely entirely on the business without working elsewhere (*being self-employed*), requisite skills needed to sustain it (*entrepreneurship skills*), and lastly where to get the finance to start. To become a successful business person (*entrepreneur*) requires a skill set (Gonçalves, Sousa & Cruz, 2017), but also the combination of opportunity, capabilities, and resources. La Porta and Shleifer (2014) state that a lack of such skills may be one of the most critical bottlenecks to growth in many lower and lower-middle economies, where a high degree of informality persists. Braunerhjelm, (2010); OECD, (2015) describe self-employment as a necessity-based venture, usually considering entrepreneurship as a last resort due to the impossibility of finding other sources of income. It may include subsistence and informal business. Consistent with the need for EE,



the extant literature suggests an entrepreneurship curriculum which is effective and efficient (Matlay, 2008) could broaden students' horizon on the need to be self-employed. So what are these entrepreneurship skills and how are they related to self-employment? The next sections provide extensive analysis on entrepreneurship skills that promote self-employment.

Most researchers define self-employment in terms of independence or autonomy (Cho, Robalino & Watson, 2014; Leon, 2017), in the sense that the self-employed are those working on their own account, rather than for an employer in a conventional employment relationship. Meager et al. (2011) state that the group of people satisfying this definition is very heterogeneous, covering a variety of types of work, exhibiting varying degrees of autonomy or independence in practice.

In developing countries, self-employment is the norm: 53% of workers in low-income countries and 36% in lower-middle-income countries are self-employed, predominantly in agriculture in both cases (Margolis, 2014). In South Asia, 85% of Indian workers are in self-employment or casual employment, and self-employment accounts for 73% of non-agricultural employment in Bangladesh (Chen & Duane, 2008). In Sub-Saharan Africa, self-employment accounts for 66% of total employment; in Kenya for 83%; in Mali for 84%; and 85% in Madagascar and Ghana. South Africa is an outlier; only 19% of the employed are in self-employment (Heintz & Valodia, 2008). Moreover, in Sub-Saharan Africa, most new non-farm jobs have been generated by households starting household enterprises (Fox & Sohnesen, 2012). Furthermore, an 18-country study reports that half of the extremely poor in urban areas (those living on less than one dollar a day) operate a non-agricultural business (Banerjee & Duflo, 2011).

Self-employment sometimes is equated with working informally but equating the two is not helpful for two reasons (Cho, et al., 2014). One is that "working informally" and the associated terms "informal economy" and "informal sector" are not defined consistently, with the consequence that "informality" means different things to different people. Second, even when the conceptualisation is clear, as when "informal employment" is thought to comprise

those who are outside the protection and regulation of the state, it is difficult to get a handle on how many of the self-employed are informal by this concept and how many not (ibid.).

Other researchers went even further by equating self-employment to the idea of precarious work (Szaban & Lubasińska, 2018). The precarious character of self-employment surfaces from the assessment of the measurable characteristics, such as fewer social benefits, high risk, long working hours, low income, and lack of permanency. Noteworthy, McKeown and Phillips (2014) focus on protection and rights, which seem at odds with independence and self-sufficiency, which are the main characteristics of self-employment. As we have seen, the two concepts of self-employment and entrepreneurship often appear jointly because it would appear as if a person who bears the risk and benefit of independence at work, must have entrepreneurial skills and abilities (Eckhardt & Eade, 2011; Fillion, 2011; Guerra & Patuelli, 2016). The next section discusses the motivations of self-employment.

### ***5.2.1 Motivation to Become Self-Employed***

It is important to understand the underlying reasons and motivation for self-employment. Three particular reasons are given:

- Firstly, because the skills required and the propensity or willingness to acquire them may themselves depend on why a person chooses to become self-employed. For example, whether they are driven to create a profitable, growing business; or are choosing self-employment for lifestyle reasons; or because they are pushed into self-employment, by an inability to find work as an employee. One overarching theme in the literature is that skills requirements and skills needs are influenced by the reasons for being self-employed (Fields, 2013; Heinonen & Akola, 2007; Meager et al., 2011).
- Secondly, some research found that motivation is a factor that can influence success and performance in self-employment (Kellard, Legge, & Ashworth, 2002).
- Finally, it is also important to understand the motivations of self-employed individuals, to ensure that initiatives supporting and encouraging self-employment adequately convey the risks and benefits of self-employment to potential entrepreneurs and that

they do not play to inaccurate perceptions of these risks and benefits (Benz, 2009; Dawson, Henley & Latreille, 2009).

The next section examines the motivation of necessity and opportunity entrepreneurs.

### ***5.2.2 Motivations: Necessity and Opportunity Entrepreneurship***

Meager et al. (2011) state that necessity entrepreneurs are motivated by push factors driving them into self-employment, such as a lack of suitable jobs in paid employment, leading to self-employment as an economic necessity. Opportunity entrepreneurs, by contrast, are pulled into self-employment through choice, although there is no consistent definition in the literature about the extent to which opportunity entrepreneurs exploit an existing market opportunity. Moreover, there is limited evidence from a small number of surveys on which portions of the self-employed population are necessity or opportunity entrepreneurs (Meager et al., 2011).

Lomax, Davies & Gordon (2007) established from the England Household Survey of Entrepreneurship that 51% of those who started a business or became self-employed in the preceding four years had done so to take advantage of a business opportunity. In addition, 18% of the respondents who had recently moved into entrepreneurship had done so purely because they had no better choices for work, although a further 11 % said that the lack of better choices had contributed to their decision. The results suggest a difference between the motivations of those moving into self-employment and those who had recently become business owners. Those who were self-employed were significantly more likely than those who own a business to say that they had moved into entrepreneurship out of necessity (21% of the self-employed versus 9% of business owners) (Lomax, Davies & Gordon, 2007). Evidence from the GEM (2014) for the United Kingdom also suggests low levels of necessity entrepreneurship (*those reporting that they had no better opportunities for work*).

Henley (2007) proposes that events (such as job loss or job dissatisfaction) encourage individuals to move into entrepreneurship. Although this does not negate the importance of

motivational factors, it does suggest a need to take a dynamic view of reasons for entering self-employment, rather than viewing these as fixed for each individual. Henley's analysis (2007) also suggests that many individuals do not undergo formal training to prepare for self-employment. This combination of rapidly formed intentions and lack of preparation raises concerns about the preparedness of individuals for self-employment.

In the case of Zimbabwe and in particular the study, the focus lies on developing student abilities (*through EE programmes in school*) to start businesses after formal employment since the country is experiencing severe job shortages (Ndofirei & Rambe, 2017; Nani, 2016) which would make them nascent entrepreneurs according to (Lackeus, 2015; Meager et al. 2011). The practical subjects already introduced in the secondary school education curriculum without EE are not enough to prepare students for self-employment (*refer to chapter 3*). The stark contrast that exists between a student who will have gone through EE programmes in terms of knowledge and skill to start and run a business is far too much to ignore especially when it comes to the Zimbabwean scenario where students are not exposed to EE. Hence the study must explore entrepreneurship skills required for self-employment.

### **5.2.3 Entrepreneurship Skills Needed for Self-Employment**

Learning about establishing a business and managing it requires set skills that will enable that business to remain viable. Grecu and Denes (2017) believe that certain skills are required to develop a business plan, create a company, integrate finance, economics, accounting, marketing. Given the dynamic trends within which economies in nations around the world including Zimbabwe are shifting due to a myriad of challenges such as the COVID 19 pandemic, institutions of learning beginning from primary school have to gear themselves up to inculcate in students' skills that will enable them to effectively function in a complex global world.

Gibb (2011) describes such kinds of skills as 'entrepreneurial'. Business Innovation and Skills (2015:6) retort that,

“they are associated with competence in the process of opportunity identification (and/or creation), the ability to capitalise on identified opportunities and a range of skills associated with developing and implementing business plans to enable such opportunities to be realised and they are called entrepreneurship skills”.

Chell (2013:8) states,

“Skill refers to proficiency in performance and may be enhanced by practice and training. Skills are multidimensional constructs; they comprise the cognitive – knowledge and what is learned; the affective–emotional expression and what is experienced; the behaviour – action at strategic, tactical and personal levels; and the context – sectoral, occupational, job and task levels”.

Matthews et al. (2009 cited in Chell, 2013) assert that skills are not the same as abilities, whilst the exercise of skill produces proficiency at tasks, abilities are akin to more general traits. Bikse et al. (2014); Elmuti, Khoury & Omran, (2012) and Rosendahl, Sloof & Van Praag, (2014) conflate Matthews, Schenkel & Hechavarria (2009) view by and argue that skills fall under the general umbrella term of ‘competencies’ and refer to what a person is capable of doing.

For purpose of the study, however, the two should be separated. Hence, ability refers to an aptitude that influences a person’s skill acquisition to perform a particular task, for example, musical aptitude or ability to manipulate numbers; whilst skill refers to proficiency in performance and may be enhanced by practice and training (Chell, 2013).

Chell (2013) takes a further bolder approach to the ‘entrepreneurship skills’ definition and categorically places entrepreneurship skills at the heart of competencies that are overarching taking in a variety of skills, abilities and other attributes relevant to the execution of a particular task or achievement of a particular goal. Hence, what are these skills? and how are they acquired?

Discussions about entrepreneurship skills are often associated with debates regarding whether and/or how such skills might be taught and/or learned (Daley, 2013). Chell (2013) advocates that that entrepreneurship skills can be taught or learned (*refer to chapter 4*). However, Meager et al. (2011) insist that there is evidence that entrepreneurship skills are influenced by a range of factors, including the demographic characteristics of entrepreneurs, their education level, their business and other experiences, and perhaps a range of traits that may be determined by genetics and/or early experiences that are difficult to change.

As soon as the entrepreneur is committed to his/her entrepreneurial process, he/she finds him/herself in a context characterised by a high level of complexity due to a scarcity of resources, uncertainty, ambiguity, lack of credibility, lack of funding, fear of failure, and nominal performance targets, which must be met if the new company is to survive (Lamine et al., 2014). This situation is much more complex in a necessity entrepreneur's context, which may increase the potential adversities, setbacks and obstacles. Accordingly, this situation requires a higher level of skills that will be required to enable the entrepreneur to succeed in his/her endeavors (Verduijn, Masurel & Van Gelderen, 2011).

The WEF (2016) proposed complex problem-solving, critical thinking, and creativity as the top entrepreneurship skills which are likely to become more important in the future. With more and more people around the world needing to collaborate, share ideas and work towards economic development, Kerr, Kerr & Xu (2017) and Mamabolo, Kerrin & Kele (2017) connected these skills to cooperation and the ability to relate to other people.

Leon (2017) and Cho et al., (2014) suggested risk-taking, persistence, visionary leadership, innovativeness, inner control, and being change-oriented as key entrepreneurship skills, which could be acquired through training. Tang, Kacmar & Busenitz (2012) extended the previous theories on what could be called entrepreneurial skills and proposed alertness, along with creativity and self-awareness, to form the basic entrepreneurial skills setup.

From an economic perspective, the entrepreneur is seen not only as a person who is seen to be possessing risks taking and start-up skills but is also as an individual who uses his/her skills

and characteristics to create value in a business (Gundry, Ofstein & Kickul, 2014). Arc (2014) posits that the entrepreneurial activities involved in training and educating students require a stable institutional framework with clear rules of the economic game so that economic agents (entrepreneurs to be) can concentrate on value creation, which is the core of entrepreneurship (as suggested by Schumpeter, 1942).

In the Schumpeterian economy, the new value is created through “creative destruction”, where the entrepreneur plays a key role. This brings us to the micro-level of the individual entrepreneur who detects opportunities and undertakes the risk to tackle them in a creative new way (Al-Awlaqi et al., 2018). Kirzner (1997) was the first to propose alertness to new opportunities to be the key entrepreneurial characteristic that individuals must have to succeed in setting up new ventures. Kirzner’s theory was extended to include skills, such as creativity (Kirzner, 2009) and self-awareness (Greg & Roni, 2012).

This has been empirically tested as a coherent measure outside of the core entrepreneurship research domain (Kucel & Vilalta-Bufi, 2016). Another insight into entrepreneurial activity comes as a corollary of the model of Becker (1993 cited in McCracken et al., 2017). In Becker’s model, individuals accumulate education, experience and knowledge, which in turn can be applied productively in new business creation (Martin et al., 2013). Unger et al. (2011) observe that higher levels of human capital are not necessarily a valid predictor of entrepreneurial success.

On the one hand, as shown before, there is evidence that entrepreneurs have to be alert and creative concerning their environment. On the other hand, there is a convincing body of evidence that higher stocks of human capital, in general, are positively associated with entrepreneurial action. However, there are also necessity entrepreneurs, among which many have low human capital (Poschke, 2013). Table 5.1 below sums up the different views on entrepreneurship skills that are considered critical for the entrepreneurial process as well as to an entrepreneur.

It is clear from the literature, and worth emphasising, that when asking about the skills required for (successful) self-employment, given the heterogeneity of self-employment, the answers arrived at are likely to be highly context-specific. Meager et al. (2011) advise that the mix of occupation-specific and business/entrepreneurship skills depends not only on the nature of the self-employed activity but also on the career path(s) followed by the self-employed person. However, Shabbir, Shariff & Shahzad (2016) argue that there are many possible career paths within occupations. A computer programmer may join an existing company as an employee, work as a freelance contractor, start up a firm or buy out an existing business. Each is likely to involve different skills and approaches to work. It is also worth bearing in mind that many who enter self-employment will not remain there for the rest of their careers (Žibėnienė, 2012).

Meager et al. (2011) stress that the skills needed by a self-employed person will vary according to the individual's motivations and business aspirations. The answers about relevant or necessary skills for successful self-employment also depend to some extent on what the measure of success in self-employment is; is it to be seen as business survival, profitability/earnings, growth/expansion, or whether the business employs others (Mamabolo, Kerrin & Kele, 2017).

Thus, EE programmes developed within educational institutions should start focusing on teaching and improving students' entrepreneurial skills (Daniel, Costa, Pita, & Costa, 2017; Schelfhout, Bruggeman & De Maeyer, 2016.), taking into account the fact that the recipients (*who are the students*) could become either self-employed or innovative employees. Table 5.1 depicts ten entrepreneurial skills, as prescribed by Chell (2013) and acknowledged by various researchers.

**Table 5.1: Entrepreneurial Skills for Self-Employment**

Entrepreneurial Skills	Author/-s (year)
Performance orientation	Chiru et al. (2012); Draycott and Rae (2011); Lans et al. (2010); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013)



<b>Creativity</b>	Chang and Rieple (2013); Draycott and Rae (2011); Hodzic (2016); Lans et al. (2011); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013); Tiwari et al. (2017)
<b>Risk-taking</b>	Covin and Wales (2012); Cui et al. (2016); Draycott and Rae (2011); Moberg et al. (2014); Morris et al. (2013); Taatla and Down (2012)
<b>Perseverance</b>	Hodzic (2016); Lans et al. (2011); Mitchelmore and Rowley (2010); Moberg et al. (2014)
<b>Leadership</b>	Chang and Rieple (2013); Draycot and Rae (2011); Lans et al. (2011); Man (2012); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013)
<b>Communication</b>	Chang and Rieple (2013); Draycott and Rae (2011); Hodzic (2016); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013); Taatla and Down (2012)
<b>Problem-solving</b>	Chang and Rieple (2013); Chiru et al. (2012); Draycott and Rae (2011); Hodzic (2016); Lans et al. (2011); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013)
<b>Collaboration/ Teamwork</b>	Chiru et al. (2012); Draycot et al. (2011); Hodzic (2016); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013)
<b>Learning</b>	Chang and Rieple (2013); Hodzic (2016); Lans et al. (2011); Man (2012); Mitchelmore and Rowley (2010); Moberg et al. (2014); Morris et al. (2013)
<b>Time management</b>	Chell (2008); Frese (2007); Schenkel et al. (2009); Zahra et al. (2006)

Source: Chell (2013)

Chell (2013) labels entrepreneurship skills to be multi-dimensional and a combination of expertise, emotions and behaviour. Any combination of this kind that fosters innovation and value creation can be labelled as entrepreneurial skills.

The literature discussions presented in the preceding sections were guided by the contributions of different scholars (Atiase, et al., 2017; Chell, 2013, Chen, et al., 2016; Dohmen, Falk, Huffman & Sunde 2018; Gindling & Newhouse, 2012, Meager et al., 2011) to understand entrepreneurship skills needed for self-employment. The skills identified by Chell (2013) and acknowledged by other researchers inform the study particularly on the area of entrepreneurship skills needed to enter self-employment. Each entrepreneurship skill is discussed in brief in the next section beginning with critical thinking.

### **5.2.3.1 Critical Thinking**

An entrepreneur must apply critical thinking skills in business to logically identify, understand and solve problems. The successful application of these critical thinking skills requires patience and practice leading to more efficient work processes. Jones & Pimdee, (2017) acknowledge that critical thinking skills are scarce especially among students who complete formal education due to the nature of the education system employed. Redecker, Leis, Leendertse, Punie, Gijsbers, Kirschner, Stoyanov & Hoogveldet (2011) suggest that critical thinking skills include the ability to access, analyse, and synthesize information, which can be learned and mastered by students. Critical thinking ensures that entrepreneurs have possible answers to problems affecting the business, an outcome Lawrence and Chester (2014) believe will ultimately save time, money, and stress. It is important to acknowledge that the improvement of critical thinking is not possible without a conscious commitment to learn (Moore & Healy, 2008).

Critical thinking skills are useful in unique situations when a new problem occurs, and it must be evaluated and solved. Entrepreneurs who master critical thinking skills develop a series of tasks within the entrepreneurial process which included identifying and understanding the connections between certain ideas; acknowledge the role and relevance of arguments; build and evaluate arguments; spot mismatches and errors of reasoning; approach issues systematically and consistently; and reflect upon their hypotheses, beliefs and values. Ultimately, the role of critical thinking is to judge issues in a specific way to achieve the best possible option in a given context” (Bejinaru, 2018).

### **5.2.3.2 Creativity**

Kariv (2011:53) describes creativity for entrepreneurialism as the envisioning of new combinations of resources and market realities, often through the questioning of conventional wisdom, the discovery of new knowledge concerning market needs, technology, or the availability of vital resources, and/or finding new applications for pre-existing knowledge. The American Society for Training and Development (ASTD) ranked leadership, critical thinking and creativity among the highest skills sought after by employers, with up to

20% of organisations indicating a deficiency in these skills among young graduates (Boyles, 2012). Bronson & Merryman (2010:8) is defined creativity as,

“the production of something original and useful connected to entrepreneurship”.

Lee, Florida & Arcs (2004: 882) refocuses on the word entrepreneurship and equates it as a form of creativity that can be labelled as business or entrepreneurial creativity because new businesses are original and useful.

Research has shown that creativity fosters better problem-finding and problem-solving skills development, and creative students are better able to handle stress and overcome difficult situations (Allen et al., 2012; BIS, 2015; Ejiwale, 2014). Bronson & Merryman (2010) highlight the positive influence of creativity in schools, with students developing high self-efficacy and confidence about their future and their ability to succeed. The next entrepreneurship skill that will be discussed is innovation.

### **5.2.3.3 Innovation**

According to The United Nations Economic Commission for Europe (2012), innovation plays a central role in driving productivity growth and fostering competitiveness in a global world where knowledge and innovation are critical factors for advanced economies. In the same vein, innovation as proposed by Schumpeter (1939) and Drucker (2010) (*refer to chapter two*) drives the entrepreneurial process as new products created by entrepreneurs are born out of innovative ideas something that Schumpeter (1939) described as ‘creative destruction’.

Braunerhjelm (2010) asserts that innovation and creativity skills have become key drivers of growth and value creation in the Fourth Industrial Revolution. Al-Awlaqiet al. (2018), in turn, emphasise that in an ever-changing economic context, countries that can quickly generate and adopt new ideas, processes and products will have a competitive advantage, yet an economy’s ability to form effective innovation ecosystems largely depends on their human capital. This is why EE should enable students to identify opportunities, handle impediments

on the entrepreneurial journey, implement the right actions to achieve desired results, and focus on their defined goals (Battaglini & Mancini, 2016). The next entrepreneurship skill that is discussed is risk-taking.

#### **5.2.3.4 Risk-Taking**

Assessment of risk by the self-employed has become a significant theme in the literature (Edirisinghe, 2017; Leon, 2017). Risk-taking is one of the key common skills that all entrepreneurs should have. Baranoff et al. (2012) confirm that business leaders accept risk as a cost of opportunity and innovation; they know that it cannot happen if they do not accept the risk that their undertaking might fail. Because most people tend to avoid risk, those who are brave enough to take risks already have a competitive advantage (Deveci, 2016). Furthermore, Tajpour, Moaddab & Hosseini (2018) posit that the concept of a first-mover advantage, when most individuals stay away from risk, means less competition for risk-takers.

This means if an opportunity is found to be worthwhile, and no one else has taken it, the risk-taker is the only business reaping the benefits. Moreover, the level of risk could be reduced if entrepreneurs make all possible calculations and evaluate which options are best before proceeding to the next step (Baranoff et al., 2012).

In a related study on why risk-taking is critical in entrepreneurship and business formation, Acs, Audretsch & Lehmann (2013) suggested that the entrepreneur has a role in the economy, only if the environment is uncertain. Thus, this separates the concept of risk (measurable uncertainty) described above from true uncertainty, which refers to the unknowable probability that an event will occur and is not associated with a statistical probability. In other words, developing an argument originally presented by Knight (1921), Acs et al. (2013) provide a theoretical argument supporting the idea that entrepreneurial behaviour is not only inherently risky but deals primarily with situations in which the statistical probability is unknown. The next entrepreneurship skill that will be discussed is problem-solving.

#### **5.2.3.5 Time Management**

According to Zachary, Gianiodis, Tyge Payne & Markman (2014), time and time-sensitive processes play a key role in entrepreneurship, from the timing of start-up decisions, growth activities and market entry, to the management of an entrepreneur's time – considered his/her most valuable and scarcest resource of all. Relatively unexplored in the broader research on time perspectives and entrepreneurship is the role of the past and the past time perspective, which can help to build the legitimacy of the entrepreneur and be a source of resilience (Baranoff et al., 2012).

Time is the entrepreneur's most precious and limited resource, and it is a unique quantity as it cannot be stored, hired or rented, or bought (Gielnik et al., 2014). Today, the entrepreneur is an innovator or developer who recognises and seizes opportunities, converts those opportunities into workable or marketable ideas, adds value through time, efforts, money, or skills, assumes the risk of the competitive marketplace to implement these ideas, and raises the rewards from these efforts. Hence, the management of time by an entrepreneur is crucial to the success of his/her venture (Zarbaksh, Pourhassani & Rahmani., 2015).

Through effective time management, according to Ologunowa, Olakunle & Itodo (2019), an entrepreneur can eliminate the pressure that may come from the feeling of not having enough time. The entrepreneur will feel in control and he/she will be able to make rational decisions without rushing through the process; this will invariably lead to good or rational decisions. The next entrepreneurship skill that will be discussed is independent decision-making.

#### **5.2.3.6 Problem Solving**

Problem-solving is an important skill required for self-employment. Schley and Van Woerkom (2014) posit that while identifying problems is a necessary part of the origin of the entrepreneurial process, managing problems is an entirely different aspect once a venture is off the ground and running. Johassen (2012) states that an entrepreneur does not have the luxury of avoiding problems and he/she is often responsible for all problem-solving in a start-

up or other form of business. The entrepreneur analyses and peels away the layers of a problem to find the core of the issue facing the business. The entrepreneur then focuses on the heart of the problem and responds reasonably and openly to suggestions for solving it. The next entrepreneurship skill that will be discussed is time management.

#### ***5.2.3.7 Independent Decision Making***

Entrepreneurial decision making is important for an entrepreneur's business survival since all decision made has a major impact on the businesses' future direction and performance (Shepherd & Patzelt, 2017). Decision making is a multistage and multicriteria process (Behrens & Patzelt, 2017). The decision-maker evaluates the possibilities of future success and the risks involved. The process of evaluation is based on the information available, such as the knowledge about the decision, the probability of each option, and the results of the options. According to Behrens and Patzelt (2017), decision-making is a non-linear, recursive process, which means that decision-makers move forward and backward between the criteria that make up the decision and the options that are available based on the criteria. During the decision-making process, a certain criterion may come up that the decision-maker did not take into account yet and wants to take this criterion in the set of criteria; thus, influencing the possible outcome of the options. The next section will discuss flexibility as an entrepreneurship skill.

#### ***5.2.3.8 Flexibility***

Being flexible as an entrepreneur, as suggested by Brewer (2013), can provide an entrepreneur with an important competitive advantage as the entire process will help in exploiting opportunities as and when they arise. Brewer (2013) further explains that if gaps are spotted in the market, the entrepreneur quickly reacts by developing new products or services, or by adapting current offerings; hence, the entrepreneur might be able to outmanoeuvre slower-moving rivals. The next entrepreneurship skill that will be discussed is enterprising.

#### **5.2.3.9 Enterprising**

Drucker (2010:12) notes that “In such a period of rapid change the best – perhaps the only – way a business can hope to prosper, if not to survive, is to innovate” and remain enterprising. Enterprise skills are a necessary and fundamental requirement of an entrepreneur. (Hessels et al., 2011). Enterprising skills help maintain competitiveness within the global business culture and are effective for self-employment. The running of any business requires individuals to take different approaches and make huge decisions that support the approaches taken and the enterprising skills comes in very handy for an entrepreneur (Gibb, 2011e). The next entrepreneurship skill that will be discussed is environmental scanning.

#### **5.2.3.10 Environmental Scanning**

Understanding that environmental and how each aspect contributes negatively and positively to the business side is an important entrepreneurship skill for an entrepreneur. Students, who need to start-up businesses have a greater advantage if they adopt environmental scanning skills to understand key business fundamentals such as when to buy goods or sell, goods, which markets are favourable or not? Naji (2019) opines that the competitiveness of an organisation depends on its business strategy as well as the development of skills to combat any form of competitiveness. Deveci (2016) supports environmental scanning and insists that it is an important entrepreneurship skill that helps to avoid entrepreneurs from being taken by surprise due to environmental changes. He suggests that entrepreneurs should spot environmental changes and adopt strategies to combat themselves from fierce competitors. Every self-employed individual need to acquire environmental scanning skills to detect and interpret challenging areas and identify opportunities. The next section analyses risk management.

#### **5.2.3.11 Risk Management**

Gibb (2012) proposes that entrepreneurial behaviour is underpinned by a variety of behaviours, enabling an individual to cope with and take advantage of uncertainty and complexity ultimately creating a basis for understanding how things are learned. Risk

management is critical to every entrepreneur as it enables them to be confident in any future business decisions. The knowledge created from making risky decisions will help in dealing with potential problems. Risk management is important for an entrepreneur because, without it, a firm cannot define its objectives for the future. If a company defines objectives without considering the risks, chances are that they will lose direction once any of these risks hit home (Andrzejczyk, 2017). The next section deals with how entrepreneurship skills are acquired.

The entrepreneurship skills proposed by Chell (2013) are used extensively in the study in providing a basis for understanding the skills that should be taught within the EE programs particularly to help students enter self-employment. It is indeed very crucial to pick on entrepreneurship skills that promote the idea of self-employment looking critically at the Zimbabwean situation where EE programs have not yet been implemented within the secondary school education system. The next section discusses how these entrepreneurship skills are acquired.

#### **5.2.4 Acquisition of Entrepreneurship Skills**

Perhaps, the question should be re-stated in terms of what elements of entrepreneurship skills are most amenable to learning, and most likely to make a demonstrable difference to business performance. Associated with these questions are debates as to the most appropriate methods for teaching entrepreneurship skills, a topic that interests educators in the education sector (Bygrave & Zacharakis, 2011; Gibb, 2012f; Lackeus, 2015).

The wheel of development for Zimbabwe to turn towards economic prosperity is realized when the following aspects are put in place,

1. Incorporate EE within teacher training syllabus in teachers' colleges and promote professional development programmes for teachers (*refer to chapter 3*)
2. Encourage entrepreneurship at an early age of life through the educational system which can guide the students and help innovation spread (Alavarez, et al., 2014) (European Union, 2020) Nani 2016; Ndofirei & Rambe 2017).



3. Establishment of EE within education curricula beginning from primary *school (refer to chapter 3)*.
4. Incorporate EE within practical subjects where senior secondary school students must learn how to start up a business and run it with the skills they would have acquired.
5. Student teachers in teachers' colleges need to thrive in the entrepreneurial physical environment, which according to the World Economic Forum (2011) has four elements namely, personal enablers, financial enablers, business enablers, and environmental enablers (*refer to chapter 3*).
6. Education sector and industry to collaborate and build partnerships in curriculum development and strategic development of students within the education system to remove the gaps created (*refer to chapter 4*).
7. All institutions in the country are required to incorporate entrepreneurship programs into their curriculum and provide young people the opportunity to acquire an entrepreneurial orientation and skills (Lackeus, 2015, Mbanefo & Eboka, 2019)

To boost the acquisition of entrepreneurship skills, the World Economic Forum (2011) recommended that governments should improve their entrepreneurial ecosystem by bringing EE to the classroom so that every student in the basic, secondary and tertiary level of education should learn entrepreneurial principles, welcome new ideas, and give support to all types of entrepreneurs.

In the view of Olawolu and Kaegon (2012:26), entrepreneurship education,

“prepares youths to be responsible and entering individuals who become entrepreneurial thinkers by exposing them to real-life learning experiences where they will be required to think, take risks, manage circumstances and incidentally learn from the outcome”.

It is only imperative from the proceeding views that EE is key in building, nurturing, inculcating, and fostering the right entrepreneurship skills which will equip students to start-up businesses and enter self-employment.

Henry (2028) suggests that EE programmes within the education sectors should themselves be task-focused, as compared to more conventional. Entrepreneurs tend to be task-oriented, so programmes, which focus on specific skills for small business management (such as finance and marketing). Neck (2016) on the other hand goes on to observe that the nature of learning about entrepreneurship skills is likely to vary according to age, experience, and goals. Each stage should be given adequate priority when implementing EE programmes.

A further useful contribution is made by Stuetzer, Obschonka, Brixy, Sternberg & Cantner (2013:48), who consider the influence of varied work experience on the acquisition and deployment of entrepreneurship skills. They examined entrepreneurs in a sample of German small businesses, using experience in five different business areas (marketing, accounting, financial control, R&D, production and personnel) as indicators of varied work experience. These measures were found to be good predictors of entrepreneurship skills and the authors concluded that.

“our study speaks in favour of a varied curriculum that builds on insights and practical experiences from a range of functions and roles to foster the development of entrepreneurial skills” (Stuetzer et al. 2013:48).

Therefore, it becomes imminent that EE must be incorporated within the secondary school education system in Zimbabwe since the nation’s destiny lies in the youths who amongst all have to develop ideas that steer the economy forward and reduce the unemployment gap.

### **5.3 CHAPTER SUMMARY**

The extant literature has confirmed that it is possible to identify a set of skills that can be characterised as entrepreneurship skills and are distinct from – although closely related to – accepted definitions of management and leadership skills. A key distinction appears to be the action-orientated way these skills are applied – in pursuit of market opportunities or business performance objectives. Some studies have suggested a wide and complex range of skills or competencies; however, in general, there is consensus that high levels of entrepreneurship skills are associated with competence in the process of opportunity identification (and/or

creation), the ability to capitalise on identified opportunities, and a range of skills associated with developing and implementing business plans to enable such opportunities to be realised. There is some evidence to suggest that there is a positive association between entrepreneurship skills and some measures of business success, although further research is required to understand which specific skills are most important and how they interrelate with other types of skills and other factors associated with business growth. The next chapter will describe the research methodology employed for this study.

## CHAPTER SIX: RESEARCH PARADIGM AND METHODOLOGY

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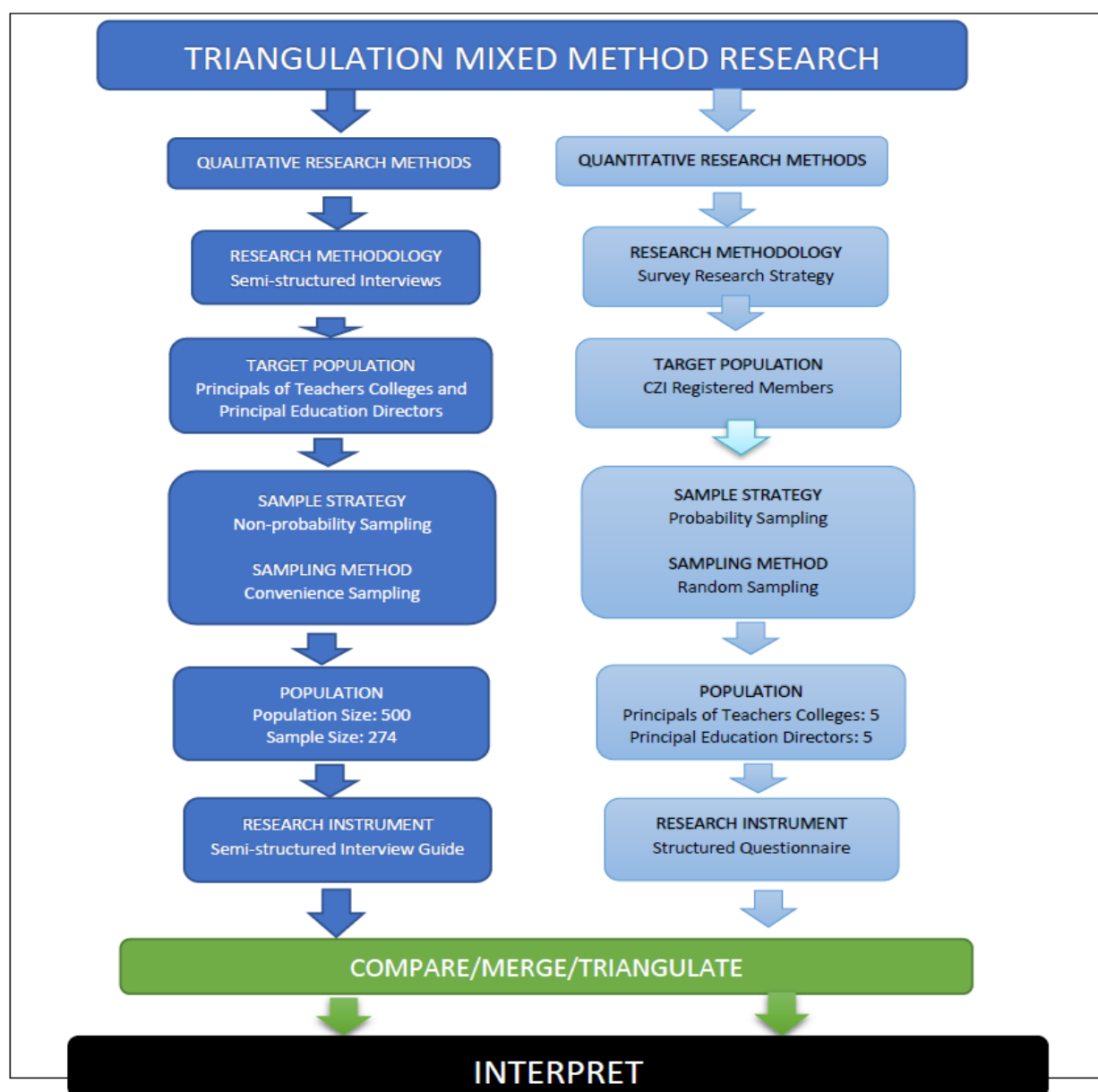
### 6.1 INTRODUCTION

The previous chapters (3, 4 and 5) provided literature review insights based on the three research objectives of the study with the chapter addressing the concerns for each objective. This chapter presents the research paradigm and methodology. It describes the research philosophy, the research design, the research strategy, and data collection and analysis.

Research methodology according to Creswell and Creswell (2018) describes is a systematic way to solve a problem. It is a science of studying how research is to be carried out. Saunders et al. (2019) state that essentially the procedures by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. The next section discusses the research process.

### 6.2 RESEARCH PROCESS

According to Saunders et al. (2009), a research process is a series of linked stages that give the appearance of being organised linearly. Figure 6.1 outlines the research process.



**Figure 6.1: Research Process**

The research applied a triangulated mixed-method approach, which involved both qualitative and quantitative methods. The qualitative methodology involved semi-structured questionnaires, whilst the quantitative methodology utilised a survey.

The target population and population size for the qualitative method involved ten Principals of Teachers' Colleges and ten Provincial Education Directors. Principals of Teachers Colleges oversee the teachers' colleges and foresee the implementation of the Ministry of Higher and Tertiary Education, Science and Technology Development 5.0 policies which are primarily

aimed at developing Zimbabwe into an upper-middle-income economy by 2030. The Principals of Teachers colleges act as transformative leaders' in tertiary education in Zimbabwe overseeing the development of the teaching curriculum on all theoretical and technical/vocational subjects. Their role is to align curricula to basic education using competency-based education in training and TVET that produces high-end skills in the hope to drive the industrialization and modernisations agenda within the Ministry.

Provincial Education Directors serve within the Ministry of Primary and Secondary Education are stationed in each of the ten provinces in Zimbabwe. Their sole responsibility is to ensure that the Ministry of Primary and Secondary Education policies are implemented within their school districts.

The quantitative population size involved 500 registered members of the Confederation of Zimbabwe Industry, with a sample size of 274. CZI is an independent, self-financed and legally constituted apex organisation in Zimbabwe, that represents and serves the interest of members in a wide array of matters affecting their viability and competitiveness. Their contribution to the study is significant in providing insight particularly at entrepreneurship skills required to enter self-employment. Interview guides were used as the research instrument in the qualitative research, while a structured questionnaire was used as the instrument in the quantitative method. The nature of the study that involved industry, teacher training colleges and ministry of education officials required that a concurrent method be used where both qualitative and quantitative data were triangulated and interpreted.

The next section presents the research paradigm.

### **6.3 RESEARCH PARADIGM/PHILOSOPHY**

There are five major philosophies in the realm of educational research, namely positivism, critical realism, interpretivism, postmodernism and pragmatism (Saunders et al., 2009). Positivism and interpretivism were used in this study to come up with the research pragmatism philosophy (Saunders et al., 2009). According to Bryman and Bell (2015c), the philosophical frameworks, which guide researchers, are termed paradigms. Paradigms serve

as values, beliefs and assumptions that researchers hold about fundamental aspects of reality, each providing specific worldviews through which researchers interpret and perceive reality (Creswell & Plano Clark, 2018).

Creswell and Creswell (2018) assert that researchers cannot carry out studies without reference to paradigms; as such, paradigms encompass systems of practice and thinking that define the research and the nature of their inquiries. According to Denzin and Lincoln (2010), each paradigm has its view of nature (ontology), clarification of whether knowledge is internal or external (epistemology), and clarification of methods to generate the knowledge (methodology).

### **6.3.1 *Pragmatism***

This study aligned the following research objectives to the interpretivism philosophy given the nature of the research objectives:

- To establish the current status of entrepreneurship training in the Zimbabwean secondary school education system vis-à-vis the international community.
- To examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe drawing from experiences of other countries.

The following research objective is aligned with the positivism philosophy:

- To determine the entrepreneurial skills required for school leavers to be able to enter self-employment.

#### **6.3.1.1 *Justification for Using Pragmatism***

This research adopted pragmatism, which utilises the strengths of both positivism and interpretivism. Conflicting theories and perspectives were also accepted and used, based on how well they helped to answer the research questions, thus, the overall approach to the research was to mix quantitative and qualitative data collection and data analysis procedures within the same study.

Saunders et al. (2019) assert that pragmatism does not favour any single belief or set of beliefs about reality, insisting that its logic is that while the world exists in reality and relative spheres, there is a need for research to focus on the desired outcomes of the research, and not the process.

As pointed out by Saunders et al. (2019), pragmatism strengthened the research in many ways. It enabled the researcher to reflect on data from various theoretical perspectives; thereby, strengthening the research design, instrumentation, validity and credibility of the study. Pragmatism also strengthened the study by complementing the strengths of positivism and interpretivism. For instance, the study adopted positivist assumptions of considering entrepreneurship as an external and objective reality, while incorporating interpretivism in the study (Denzin, 2010). Schumpeter (1942:128 cited in Al-Awlaqi et al., 2018), in his definition of the economic development theory of entrepreneurship, emphasised “the endogenous changes in economic life” in distinction from the “exogenous changes imposed on the economy”. In explaining the endogenous changes in the economy as “the cause of development”, he originally depended on the typology of a human being – thus, “the hedonistic-static man and the energetic-dynamic man” (ibid.).

Schumpeter (1942:128 cited in Al-Awlaqi et al., 2018) further elaborated on this view stating, “Whereas the hedonistic type of man behaves to attain the maximum satisfaction of wants under given conditions, the energetic type of man pursues creative forms in the economy”. Schumpeter’s theory validated the incorporation of EE within the education system in that the programmes involved would eventually promote business start-up ideas within students and a realisation that self-employment can be regarded as a career choice. The changes EE brings within the education sector are outcomes that are linked directly to the country’s economic benefits as more students will opt to generate income through personal initiative rather than being reliant on the government to create jobs.

In his view, changes in technology, along with changes in capital, labour, wants and economic organisation, would only cause the adaptive responses of the economy, involving the majority of economic agents and remain the subject matter of static economic theory



(ibid.). The essence of evolution and development lies not in technical changes per se, but the energetic human activities carrying out innovation.

The researcher applied pragmatism in this study. This allowed for the use of participation and observation techniques during the data collection to understand the issues of entrepreneurship. Guided by pragmatic thinking, the study assumed that while the truth about the nature of entrepreneurship and the variables that drive its development existed independent of the researcher and the participants' minds, it was also possible to gain insight into how the researcher and the subjects interpreted these underlying issues. This flexibility allowed the researcher to study the context in which a framework for entrepreneurship development within the secondary education system in Zimbabwe was formed and implemented. Through pragmatism, the study overcame limitations inherent in pure positivism; for example, in describing contexts of entrepreneurship education policy, the researcher had to interact with the subjects and verify the data.

A mixture of different approaches to study the same issues also neutralized the weaknesses of induction and deduction, -supporting the validity of the findings (Bryman & Bell, 2016d). For example, assessing the integration of EE within the education system in Zimbabwe as the best method approach towards promoting students to opt for self-employment as a career option from a purely objective view, ignoring the internal perspective, could not have brought absolute truth (Greener & Martelli, 2015).

Adopting pragmatism also contributed to the advancement of knowledge. For instance, by taking a pragmatic stance, the thesis did not completely reject positivist beliefs but sought to contribute towards reforming positivism, making it more appropriate to studying entrepreneurship within its social realities (Bryman & Bell, 2015c:15). Pragmatism, therefore, enabled the study to develop the space between positivism and the interpretive paradigm, as suggested by Saunders et al., (2019).

However, the researcher took note of the shortcomings of pragmatism, where at times pragmatic researchers fail to provide satisfying answers to the question of whom the

pragmatic solution is useful to (Bryman & Bell, 2015c:17). The next section discusses the ontological and epistemological assumptions underpinning the pragmatic philosophy.

### **6.3.1.2 Ontological Approach**

Ontology is defined as “the study of being” (Saunders et al., 2009:110). In the same vein, Creswell and Plano Clark (2018) define ontology as the study of reality (what is known about entrepreneurship), while Bryman and Bell (2016d) view it as a system of beliefs (theories guiding entrepreneurship) that reflects the researcher’s interpretation of what constitutes reality.

According to Saunders et al. (2019), ontology leads to questions of whether the typology of the passive and active man constitutes the ontological premise of Schumpeter’s concept of evolution as a critique of the traditional concept of the economic man. Schumpeter (1942 cited in Arcs and Audretsch, 2010) called the type of energetic person *Mann der Tat* (man of action), leader and entrepreneur. According to Schumpeter’s (1942) definition, the innovator swims against the current of the time, overcomes all resistance, and thereby succeeds in creating new directions. The novelty of introducing EE within an education system riddled with a high emphasis on academic results and an economy that fails to absorb its own products (*students*) is related to Schumpeter’s definition and impacted the current choice of pragmatism for the study.

Ontology also raised questions on whether entrepreneurship is an objective reality or a product of researchers’ cognition. It further raised questions on whether it is a given body of knowledge to study objectively, or if it was created in the minds of others (Saunders et al., 2009:110). Therefore, ontology answered questions on what entrepreneurship is, and how it is implemented and facilitated.

Other ontological assumptions for the study emerged from the idea that entrepreneurial research is concerned with the identification, evaluation and exploitation of entrepreneurial opportunities (Alvarez & Barney, 2010). Students’ traits, prior knowledge and social networks

influence alertness to existing entrepreneurial opportunities and the ability to create opportunities (Lim & Xavier, 2015). Thus, the ontological assumption on the nature of entrepreneurship was that opportunity discovery and creation, and its implementation in any developing nation (such as in Zimbabwe), was facilitated by underlying elements of strategy formulation, integration, culture promotion and competence development. (Alvarez & Barney, 2014) as part of school education.

### **6.3.2 *Epistemology Assumption***

Burrell and Morgan (1979 cited in Saunders et al., 2019:133) refer to epistemological assumptions as assumptions about knowledge; what constitutes acceptable, valid and legitimate knowledge; and how we can communicate knowledge to others. The researcher's constructivist epistemological position allowed for a qualitative enquiry underpinned by the supposition that all people, including researchers, construct the realities surrounding them (Charmaz, 2014). Hence, this kind of research involves the researcher co-constructing meaning of the phenomenon under study with the participants. The next section analyses interpretive perspectives.

### **6.3.3 *Interpretivist Perspectives***

This study also employed the qualitative approach, informed by the interpretivist paradigm, to address the first and second objectives. Interpretivist research philosophy brings rigour to the study and allows for the researcher's participation. Bryman and Bell (2011a) and Saunders et al. (2016) assert that the interpretivist paradigm aims to understand how people in everyday natural settings create meaning and interpret the events in the world. According to Bryman and Bell (2011a:24), the interpretivist approach was the first philosophy to challenge the positivist approach, therefore sometimes referred to as the anti-positivist approach (Maree & Van der Westhuizen, 2010:32). According to interpretivism, the subject matter of the social sciences, people and their institutions is fundamentally different from that of the natural sciences (Bryman & Bell, 2011a:24). The interpretivist paradigm, according to Greener and Martelli (2015:201), applies qualitative research methods, such as discourse

analysis and unstructured interviews, to investigate perceptions and experiences of reality by actors in organisations – namely, employees, shareholders and managers.

Interpretivism provides many opportunities to observe concepts or research variables in their natural settings (Dawson, 2002; Murherji & Albon, 2015). The interpretivist paradigm was used to ascertain the current status of entrepreneurship training of teachers (?) from the principals of teachers' colleges in their natural setting.

Moreover, the paradigm emphasises the involvement of the researcher in the research process (Murherji & Albon, 2015). The researcher carried out in-depth interviews with the principals of teachers' colleges in Zimbabwe. Interpretivism allowed the researcher to focus on an "emphatic understanding of how people feel inside, seeking to interpret individuals' everyday experience, their deeper meaning and feelings" and the "eccentric reasons for their behaviour" (Bryman & Bell, 2011a:24; Dawson, 2013:10). The interpretivist paradigm allows a researcher to gain an in-depth understanding of phenomena (in this study, entrepreneurship training and teaching) and concepts left out by positivism. According to Saunders et al. (2012:134), the interpretivist paradigm also establishes the permanence and priority of the researcher's subjective experience.

However, interpretivism does not provide adequate confidence in capturing the relevant issues in research. Creswell (2015) suggests that the subjective nature of interpreting people's thoughts and feelings brings forth questions on reliability and validity, as well as the trustworthiness, credibility and authenticity of the research findings. According to ). Saunders et al. (2016:127), different interpretations might co-exist and each could be defended based on the independence of each researcher.

This study thus combined the positivist and interpretivist paradigm, a mid-range approach known as the pragmatism paradigm, which allows for the combination of quantitative and qualitative philosophies. The next section discusses the study's positivist perspective.

#### **6.3.4 *Positivist Perspective***

The positivist paradigm was employed in the study to address the quantitative aspect of the study, espoused in research objective three. Positivism is also referred to as “scientism”, an ancient and well-known paradigm (Bryman & Bell, 2015c:10). Saunders et al. (2016:127) argue that the positivism paradigm is “a shred of evidence, trustworthy and authentic understanding (rather than knowledge) that is contextual”.

The researcher assumed that within objective 3, entrepreneurship education existed and that it was a driver for the development of entrepreneurship intentions, especially in students, from a positivist perspective. This was independent of the researcher’s perspective and values.

Through this perspective, the researcher saw opportunities and the environment, which facilitated the discovery of opportunities by students, as an independent reality. The researcher, therefore, treated opportunities as if they were definable objects with material properties that could be studied from afar.

The assumption that the researcher is value-neutral is premised on positivism; hence, the research findings are objective and unquestionable. A highly structured methodology to facilitate the replication and quantifiable observation that can lead to statistical analysis is used in this paradigm (Bryman & Bell, 2011a:24; Terrell, 2011). It views the world as a science and it is observed as the benchmark in understanding the complex world, based on the assumption that scientific knowledge is the basis of progressive and cumulative progression of knowledge.

This study held a set of assumptions on the nature, and the characteristics and factors, which determine the entrepreneurial skills required for school leavers to be able to enter self-employment, which can be objectively measured. A questionnaire was used for the quantitative component of this study (objective three); hence, it is positivist orientation. Data collection, analysis, presentation and interpretations were done, based on positivist philosophical foundations. The next section provides perspectives on the research approaches adopted for this study.

## **6.4 RESEARCH APPROACHES**

The research is a mixed-methods enquiry, which adopted qualitative and quantitative approaches of inquiry, and used them concurrently. The researcher took note of the fact that the two approaches have paradigmatic differences, which make them appear incompatible. However, they were used on the basis that both are empirical approaches to inquiry able to collect and generate data to describe and explain the phenomena (Creswell & Creswell, 2018:70). Their use was also justified by the thinking that researchers must use mixed methods in a way that complements the strengths and overcomes the weaknesses of the other (Bryman & Bell, 2016d).

The next section discusses the strengths and weaknesses of both approaches and justifies their combined use in this mixed-methods study, beginning with the qualitative research method.

### **6.4.1 *Qualitative Research Approach***

This study also employed the qualitative approach, informed by the interpretivist paradigm, to address the first and second objectives. It involved the development of in-depth interviews to address the qualitative research objectives. The qualitative approach was used in the development of an in-depth structured interview guide to address the primary and secondary research objective. Creswell and Creswell (2018:156) state that the qualitative research approach involves the subjective assessment of research insights, attitudes, opinions and behaviours. Questions are constructed and focused depending on the researcher's subjective assessment of the environment and constructs (Creswell, 2014:4). Creswell (2014:4) further explains that the "qualitative approach involves emerging questions and procedures, data typically collected from a particular setting, data analysis inductively building from a particular setting and the researcher interpreting the meaning of the data". The next section discusses the qualitative research approach.

### **6.4.2 *Quantitative Research Approach***

Quantitative research has historically been the cornerstone of social science research. Purists call for researchers to “eliminate their biases, remain emotionally detached and uninvolved with the objects of study and test or empirically justify their stated hypotheses” (Johnson & Onwuegbuzie, 2004:14). Quantitative research design is premised on the philosophy that everything is factual and that the truth about phenomena is out there and can be studied, explained and predicted with numerical and statistical methods (Bryman & Bell, 2015).

The quantitative inquiry formed the basis of the methodology by defining the target population of all the Confederation of Zimbabwe Industry (CZI) members. Through the quantitative inquiry, the third research question assessed the entrepreneurial skills required from school leavers to be able to enter self-employment. The quantitative inquiry contributed by filling gaps regarding universal underlying variables, which facilitate the implementation of entrepreneurship within the secondary school education system in Zimbabwe.

A survey method was used for the quantitative inquiry. The survey method surveyed the CZI members. The quantitative approach was ideal for studying such a large population; hence, the researcher could reach out to all CZI members dotted around Zimbabwe. The quantitative approach also enabled the researcher to use convenient sampling techniques. These techniques were useful to obtain representative samples of CZI members, which in turn allowed generalisation to be done, to give a holistic picture of the nature of entrepreneurship skills applicable to the secondary school education system in Zimbabwe. Questionnaires to collect large quantities of data from the large population were used for the quantitative approach. This promoted standardisation of the responses and the assessments, and the pronunciation of variables.

However, the researcher observed a shortcoming inherent in the quantitative approach. As pointed out by Bryman and Bell (2015d), quantitative research produces data that are abstract, and which are too general to apply to specific contexts. It also might omit some occurring phenomenon because of its emphasis on theory. Saunders et al. (2009) argue that quantitative research focuses on repetitions and predictions, thereby limiting the researcher’s perceptions of predictable aspects of human behaviour. Using it on its own in this study would have disregarded critical elements, such as the attitudes, values and beliefs

of CZI's members and the researcher's values as well although to larger extent, the objectivity of the researcher in the interpretation of data is supported.

The quantitative inquiry on its own was insufficient in investigating the dynamics of entrepreneurship, as these dynamics operated in multiple configurations and contexts. The quantitative inquiry was also inadequate in studying behavioural, interpersonal and environmental realities in the development of a framework for entrepreneurship within the secondary school education in Zimbabwe. The next section provides an in-depth analysis of the mixed research approach employed in this research.

#### **6.4.3 *Mixed Research Approach***

In the mixed-method approach, there are various steps involved. The researcher collects and analyses both the qualitative and quantitative data rigorously in response to the research questions and hypotheses; integrates the two forms of data and their results; organises these procedures into specific research designs that provide the logic and procedures for conducting the study; and frames these procedures within theory and philosophy (Creswell & Creswell, 2018:41).

#### **6.4.4 *Justification of the Mixed Method Approach***

The use of the mixed-method approach in this study was critical in addressing the shortfalls inherent in the mono approach. The approach further allowed the researcher to explore the broad scope of knowledge and understanding of entrepreneurship training and teaching. Moreover, the incorporation of qualitative and quantitative approaches in this study enabled the researcher to have a clear understanding of the research problem. Greener and Martelli (2015:43) point out that a mixed approach supports the triangulation aspect – where different methods of data collection and analysis are applied so that it enriches the research problem.

Furthermore, the complexity of entrepreneurship and its close association with natural and social science motivated the researcher to adopt the mixed research approach to allow for a



deeper analysis of the phenomena (Baron & Tang, 2011). The mixed-method approach and its association with pragmatism further build the strength of each type of data collection and minimises a single approach; hence, improving the reliability and validity of the data (Creswell & Plano Clark, 2018).

The mixed-method approach incorporates objectivity (positivism) and subjectivity (interpretivism), and reality concepts in favour of practicality in managing methodological selections (Creswell, & Plano Clark, 2011). Several empirical studies on entrepreneurship education have favoured the use of a mixed approach, in what is commonly referred to as method configuration (Creswell, & Plano Clark, 2011). Many scholars concur that the configuration of research approaches resolves the inherent limitations of a traditional single method approach (positivism); thus, allowing researchers to benefit from the richer and more holistic findings from the mixed approach (Cronholm & Hjalmarson, 2011; Peng, Nunes & Annansingh, 2011). The next section examines the research design employed in the study.

## **6.5 RESEARCH DESIGN**

According to Bryman and Bell (2016d:81), a research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority being given to a range of dimensions of the research process. These include the importance attached to expressing causal connections between variables; generalizing to larger groups of individuals than those forming part of the investigation; understanding behaviour and the meaning of that behaviour in its specific social context; as well as having a temporal (i.e., overtime) appreciation of social phenomena and their interconnections. Thus, the next section provides detail on the research approach used in the study.

### **6.5.1 *Concurrent Triangulation Design***

This study used a concurrent triangulation design. The design involves the separate use of quantitative and qualitative methods of data collection and analysis (Saunders, 2016:170).

Moreover, the set of results will be interpreted together to provide a broader response than a single method (Saunders, 2016:170).

The research design is a preliminary plan for conducting the research. It includes an outline of the research; the operational implications; and the final analysis of the data. A research design also aids the researcher in the allocation of resources by posing crucial choices in methodology (Creswell & Plano Clark, 2018). The next section discusses triangulation.

### **6.5.2 *Triangulation***

Triangulation is “the use of more than one method or source of data in the study of a social phenomenon so that findings may be crossed-checked” (Bryman & Bell, 2015c:123). According to Creswell and Plano Clark (2018), triangulation is a process to verify research findings. Moreover, it a process by which a researcher can find and remove methodological defects and researcher bias. In this study, the research is designed to look at the perceptions of different groups of participants on the issue of developing a framework for entrepreneurship within the secondary school education system in Zimbabwe; hence, the data triangulation approach was employed (Bryman & Bell, 2015c).

Firstly, this study reviewed literature from journals, books and editorials. Secondly, data was collected from the CZI’s registered members using the quantitative survey method. Thirdly, the views of Principals of Teachers Colleges were collected through semi-structured qualitative interviews, and these viewpoints were collated. Lastly, the results from quantitative surveys and results from qualitative interviews were triangulated.

The participants represented different levels of the education system and the information derived from the literature sources provided a variety of answers. This not only enriched the findings but also provided complementary perspectives on the topic under investigation, utilising a process of triangulation. The next section discusses the research strategy.

## **6.6 RESEARCH STRATEGY**

According to Saunders (2016:178), many research strategies can be employed in research, namely experiments, case studies, ethnography, action research, grounded theory, narrative inquiry, and surveys. A survey research strategy was employed in this study.

### **6.6.1 *The Survey Research Strategy***

According to Saunders et al. (2016), a survey strategy allows the researcher to collect quantitative data, which can be analysed using descriptive and inferential statistics. Furthermore, states Galiers (1992), a survey provides a representative sample of the area of study and serves as an efficient and effective means of looking at a far greater number of variables than is possible with experimental approaches. Based on this, and in achieving the third objective of this research study, a survey (in the form of a questionnaire) was carried out to obtain the desired information on entrepreneurial skills required from school leavers to be able to enter self-employment in Zimbabwe.

### **6.6.2 *Justification for A Survey Research Strategy***

The survey method was deemed appropriate for this study for several reasons. Firstly, surveys are a cost-effective method of collecting data from a large number of participants (Bryman & Bell, 2015). As the study adopted a pragmatic philosophy, the survey strategy allowed the researcher to utilise qualitative and quantitative instruments (Saunders, 2016:182). Secondly, surveys are perceived to be valuable for sensitive issues (Creswell & Creswell, 2018). In this study, implementation of EE in secondary schools are likely to be viewed as sensitive information; thus, utilising surveys could help facilitate disclosure. Thirdly, due to the length of the questionnaire, surveys are appropriate because they offer a degree of flexibility for the participants, enabling them to complete the pen and paper questionnaire at their own time and pace (Saunders et al., 2009)

### **6.6.3 Survey Data Characteristics**

Two different sets of participants were involved, Principals of Teachers' Colleges and Provincial Education Directors who provided insights, opinions and recommendations on areas of expertise and field. Principals of Teachers Colleges who fall under the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development gave insights on what programmes existed within teacher training, opinions on the existence of EE and gave recommendations on how to incorporate EE within the teacher training programs in Zimbabwe. On the other hand, Provincial Education Directors who are under the Ministry of Primary and Secondary Education in Zimbabwe Directors who gave insights on the ability of the Zimbabwean system of education to incorporate EE within secondary schools provided opinions on policies that exist within the primary and secondary school education and gave recommendations on the importance of EE within the Zimbabwe education system.

Johnson & Onwuegbuzie (2004) concur that mixed paradigm data believed to be "third wave" or "the third research movement" uses induction in the discovery of patterns, experiences and practical consequences of belief and deduction to test theories. Murthy & Bhojama, (2014) opine that coherent insight for qualitative and quantitative research approaches that are concurrent boost the opportunity for the researcher to address the research questions.

## **6.7 QUALITATIVE DATA COLLECTION**

According to Denzin and Lincoln (2008:3), "Qualitative research studies things in their natural setting, attempting to make sense of, or interpret phenomena in terms of meanings people bring to them". Qualitative purists support a constructivist or interpretive paradigm. They "contend that multiple-constructed realities abound, that time- and context-free generalizations are neither desirable nor possible, that research is value bound, that it is impossible to differentiate fully between causes and effects, that logic flows from specific to general and that knower and known cannot be separated because the subjective knower is the only source of reality" (Johnson & Onwuegbuzie, 2004:14).

### **6.7.1 In-Depth Interviews**

A semi-structured interview involves several open-ended questions based on the topic areas to be covered (Creswell, 2011). Several questions in both sets of the interview questions were closed questions for example questions 2, 4 and 6 (*refer to annexure B1 and B3*). Saunders et al., (2009) stress that the open-ended nature of the questions posed defines the topic under investigation but provides opportunities for both the interviewer and the interviewee to discuss some topics in more detail. The literature review on EE and its impact on the education system particularly in secondary schools were used to construct interview questions.

The study's in-depth interviews were used to collect information from the two sets of participants, Principals of Teachers Colleges and the Principal Education Directors in the Ministry of Primary and Secondary Education. Guided by the principle of saturation, five Principals of Teachers Colleges and five Principal Education Directors in the Ministry of Primary and Secondary Education were interviewed. The in-depth interviews were carried out between October 25, 2019, and November 20, 2019. These interview dates were decided on after prior consultation and appointments with the respective interview participants (the Principals of Teachers Colleges and Principal Education Directors in the Ministry of Primary and Secondary Education). The researcher visited the selected participants to conduct their in-depth interviews face-to-face. After the appointments were established, the researcher distributed the in-depth interview sample questions in Annexure 3 and Annexure 5. This was done so that the participants could familiarise themselves with the questions, and to allow them to ask for clarification before the initial interviews.

The process of interviewing these two sets of participants included drawing up a topic guide on the status of entrepreneurship training in the secondary school education system in Zimbabwe vis-à-vis the international community, and on whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe drawing from the experiences of other countries. In addition to the topic guide, the interviewer created written prompts to ensure that the necessary preliminary ground was covered. The process included establishing that the participants understood the guide and

signed the consent form (see Annexure 2) before the interviews were done. The interviews were audio-recorded and record-keeping was done using a reflexive diary, which the researcher kept.

Critics of qualitative data argue that it is subjective and it is impressionistic when it comes to the sample size (Bryman & Bell, 2011a:306). However, Bryman and Bell (2011a:326) state that qualitative research's sample size is determined by the problem statement and the research objectives. Bryman and Bell (2011a:326) assert that although qualitative research is discredited in terms of small samples, it is also associated with depth and a clear understanding of the critical issues being researched. Qualitative data collection represents the interpretivist paradigm, which provides the researcher with the ability to engage the respondent in a real-life situation (Creswell & Clark, 2011). The next section provides details on the qualitative population.

### **6.7.2 Qualitative Population**

Patton (2002) and in De Vos (2001) argue that in qualitative research there are no fast rules for sample size; the size depends on what the researcher knows about the populations, the purpose of the inquiry, the credibility of the study, and research availability, among other considerations. Based on these considerations, the qualitative population comprised ten participants consisting of five Principals of Teachers Colleges and five Provincial Education Directors in the Ministry of Primary and Secondary Education in Zimbabwe. These selected participants had direct experience in primary and secondary education and teacher training. The Principals of Teachers Colleges and Principal Education Directors in the Ministry of Primary and Secondary Education were chosen purposively.

### **6.7.3 Qualitative Sampling Procedure**

Cooper and Schindler (2010:348) propose that a good sampling procedure should have validity, which is measured by "accuracy and precision". Accuracy represents the degree to

which bias is absent from the sample and precision is the measure of how close the sample represents the population (Cooper & Schindler, 2010; Saunders et al., 2012).

The groups of participants in this study were selected using different sampling methods. Given that this study aimed to develop a framework for entrepreneurship within the secondary school education system in Zimbabwe, the qualitative aspect of the study focused on soliciting the views of Principals of Teachers Colleges and Provincial Education Directors in the Ministry of Primary and Secondary Education on what they perceived as the current status of entrepreneurship (key constraints) in the Zimbabwean secondary school education system and to examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe drawing from experiences of other countries (key drivers).

The sample for the qualitative data collection was purposefully drawn from five major teachers' colleges in Zimbabwe and five Principal Directors at the head offices of the Ministry of Primary and Secondary Education. The researcher considered purposive sampling as the most appropriate sampling technique due to the varied nature of the positions of the participant's key issues in education in Zimbabwe and as well inform the research questions provided. The two sets of participants are drawn from two-parent Ministries that drive education policy in Zimbabwe, Ministry of Primary and Secondary Education and Ministry of Higher and Tertiary Education, Innovation Science and Technology Development.

The critical nature of the two sets of participants was their positioning, Zimbabwe having 10 provincial education directors in each Province and 9 Teacher Training Colleges dotted in the 10 provinces in Zimbabwe. The selected participants have centralised stations of work and education departments; hence, it was easy for the researcher to identify participants for the study. The research had targeted interviewing ten participants representing the Principals of Teachers Colleges. However, data saturation was reached after interviewing five participants. The next section discusses qualitative data analysis.

#### **6.7.4 Qualitative Data Analysis**

The study used systematic grounded theory principles for data analysis. This involved open, axial and selective coding (Creswell, 2014). According to Saunders et al. (2012), qualitative data analysis encompasses the analysis of non-numeric data from participants' responses. Creswell (2014) posits that qualitative data analysis enables the researcher to develop sense from text and images through the process of segmenting data. In this study, the researcher analysed data that was obtained from in-depth interviews. The analysis began with the coding process directly after the first 5 interviews were conducted.

##### **6.7.4.1 Open coding**

Open coding encompasses coding data for its main groupings of facts (Creswell, 2014). In the research process, the in-depth interviews were tape-recorded, transcribed, prepared and organised into a summary of events through the compression of long statements into principal ideas by the researcher. Creswell (2014) observes that the process enables the researcher to identify relationships that exist between the variables in the data obtained from the respondents. Different key points from data were obtained from participants' insights, opinions and recommendations which provided meaning for the researcher to interpret.

##### **6.7.4.2 Axial Coding**

In axial coding, the researcher identified one open coding category to focus on the core phenomenon, goes back to the data, and creates categories around the core phenomenon (Creswell, 2014). In this study, the researcher developed categories from meaningful chunks of data. The data was arranged and analysed in table format (Saunders et al., 2012). The researcher then categorised the data using codes and names, which facilitated the development of propositions, and findings of the research objectives. The researcher applied inductive analysis to the different codes and categories, which facilitated the development of a narrative process on different facts and concepts. The inductive analysis helped the researcher to understand the different constructs of the responses and interpret meaning from the data.



#### **6.7.4.3 Selective coding**

Using selective coding, the researcher organised the data through narrative structuring, which required the data to be analysed in its original form, rather than seeking to fragment it. The researcher further focused on the chronology of events by providing a detailed discussion of the different themes and codes (Creswell, 2014). Then, the researcher generated the meaning of the different themes and codes, using tables and merging central ideas. Furthermore, the researcher categorised the data, making inferences from the theoretical framework, and taking cognisance of the research objectives and questions. This facilitated the development of themes or relationships and patterns with the view of developing a testable proposition with a valid conclusion and an exploratory theory. Testing of the proposition was essential in the development of the proposed framework based on valid conclusions and an exploratory theory (Saunders et al., 2012).

The entire process of the qualitative data analysis produced themes that were used in the development of the proposed strategy framework. Coming up with the appropriate themes involved continuous consultation and interactive processes between the researcher and the supervisor. The continuous and rigorous interactive process was also essential in coming up with grounded themes that were in line with the development of an entrepreneurship framework. The different themes were also presented in a table format to identify patterns and relevance to entrepreneurship training and entrepreneurship teaching.

#### **6.7.5 Trustworthiness in Qualitative Research**

Creswell (2014) provides several strategies that can be used in testing the validity of the qualitative research process. Having a clear-cut outline of instrumentation and clarification on ambiguous responses are some of the important techniques. Ghauri and Gronhaug (2010) posit that qualitative research validity is categorised under four types, namely descriptive, interpretative, theoretical, and generalised.

To “achieve descriptive validity, the researcher held regular consultations with the supervisor and research experts within the business school department. To achieve theoretical validity, the researcher also set out a detailed protocol and database to facilitate other researchers to inspect the research findings and conclusions. The researcher also allowed the participants to use languages they were comfortable with when clarifying points and highlighting issues.” These languages included Shona and English. No interpreter was involved.

## **6.8 QUANTITATIVE DATA COLLECTION**

The quantitative data collection for this study used questionnaires. Hard copies were distributed by hand to CZI Managers as questionnaires.

### **6.8.1 Quantitative Population**

According to the CZI database (2019), there were 500 paid up and registered members in Zimbabwe. Thus, the study population comprised 500 registered CZI members across Zimbabwe. CZI sits at the apex level of businesses in Zimbabwe that deal directly with students on attachment and those that come in after formal education making them ideal candidates to provide information that informed research objective 3. The researcher recruited research assistants who collected data. The recruited fieldworkers were trained in conducting fieldwork and they were instructed on how to administer questionnaires taking cognisance of research ethics. All the fieldworkers signed non-disclosure agreements (refer to Annexure 7). The data was collected from the 1<sup>st</sup> to the 15<sup>th</sup> of December 2019.

### **6.8.2 Quantitative Sample Size**

The ever-increasing demand for research has created a need for an efficient method of determining the sample size needed to be representative of a given population. The study used the Krejcie and Morgan (1970) method of determining the sample size needed to be representative of a given population (refer to Annexure 8).

According to Cooper and Schindler (2016), Bryman and Bell (2015) and Saunders et al. (2016), the choice of a sample size depends on several considerations, including the required representativeness of the sample; the desired level of accuracy; the required precision level or tolerable error margin; the availability of financial and non-financial resources; and the expected dispersion in the population. Bryman and Bell (2015) observe that larger populations require smaller percentages of the population for a sample, and vice versa.

The Krejcie and Morgan (1970) sample size calculator is a statistical equation that enables researchers to determine the sample size, given the margin of error, confidence level, response distribution and population size. In calculating, the researcher used a 95% confidence level, a response distribution of 5%, and a margin of error of 5% (Cooper & Schindler, 2014). The Krejcie and Morgan sample size calculator gave a recommended sample size of 274 participants. The population size, as obtained from CZI's registered 500 platinum members list which has the highest subscribers within CZI as well as the most companies. Given the fact that that the category is composed of managers, the researcher chose the platinum members purposively/conveniently. These participants have an in-depth appreciation of entrepreneurship skills as they interact with students on attachment from different colleges in Zimbabwe, university graduates and youths. It is important to note that these managers are drawn from different sectors of the economy that include manufacturing retail, construction, warehousing, corporate and departmental stores, thus increasing the generalisability and robustness of the findings. A total number of 274 questionnaires were distributed throughout Zimbabwe with the assistance of the CZI branch managers in four of the provinces in Zimbabwe, namely Harare, Matabeleland, Midlands and Mashonaland. Of these, 252 were returned, representing a 92% response rate. SPSS statistical software was used in the data capturing and analysis.

### **6.8.3 Questionnaire**

Quantitative data was collected using a self-developed questionnaire (refer to Annexure 7) whose design was guided by the research objective 3. The questionnaire had 26 questions, divided into seven sections. The first section contained the participant demographic characteristics, while the second section contained the business information. The third

section contained motivators of self-employment; and the fourth section contained the relationship between industry needs and the education system. The fifth section comprised skills requirements and economic development, whilst the sixth and seventh sections contained conditions necessary for entrepreneurship development and industry level involvement in entrepreneurship, respectively.

These questionnaires were coded with the assistance of a statistician to facilitate inputting the data into the Statistical Package for the Social Sciences (SPSS) for analysis. The questionnaire used a Likert scale of 1 - 5 (1 representing SA = Strongly agree; 2 representing A = Agree; 3 representing D = Disagree; 4 representing SD = Strongly disagree; and 5 representing NO = No opinion).

Pilot testing of the questionnaire was done on ten participants with the involvement of a statistician to improve the questions. Ten questionnaires that invariably informed research question 3 were tested to identify ambiguities and the range of possible responses for each of the formulated questions. The research assistants who collected data were trained in conducting fieldwork taking cognisance of research ethics. The researcher also bore in mind that it was better to have more information and prune it later than to have insufficient information.

The researcher used close-ended questions to control the responses and data gathered using the structured questionnaires. The major consideration for applying the questionnaire was to administer large numbers of respondents and to improve the accuracy of the results. Self-administering of the questionnaire allowed the researcher, with the aid of the research assistants, to hand-deliver the questionnaires to the respondents in the CZI in different towns. The major motivation for self-administering the questionnaires was to target large numbers of respondents. The researcher personally verified the questionnaires on completeness, consistency, accuracy, and correct numbering (coding). The participants were asked to fill in the questionnaires based on their perception of the entrepreneurship skills required of school leavers to enter self-employment.

#### **6.8.4 Quantitative Sampling Method**

In probability sampling, according to Creswell (2016), each element of the population has a known non-zero probability of selection. A type of probability sample, namely simple random sampling, was used in this study. Creswell and Creswell (2018) state that simple random sampling is a random method of selecting a sample in which each element and each combination of elements in the population have an equal probability of being selected as a part of the sample.

The sampling process followed in this study was as follows: divisional heads within the four designated provinces in Zimbabwe where CZI has offices, namely Mashonaland, Matabeleland, Midlands, and Manicaland, were used to identify the platinum members, who were used in this study. Each designated province within CZI was given 64 questionnaires for distribution.

#### **6.8.5 Quantitative Data Analysis**

Quantitative techniques were used to analyse the data collected from the administered questionnaire. Below is a brief explanation of the quantitative data analysis, which was done by the researcher.

##### **6.8.5.1 Data coding**

The researcher assigned numerical codes to the data representing different variables to identify missing data from different respondents. Coding involved assigning numbers or other symbols to answers so that the responses could be grouped into a limited number of categories (Cooper & Schindler, 2014:405). The data was recorded using numerical codes, which allowed the SPSS software 27.0 to reserve a special code for missing data, which may have come from non-response of the questionnaire (Saunders et al., 2012:417). The codebook/scheme contained variables used in the data analysis process (refer to Annexure 9).

#### **6.8.5.2    *Entering data***

All data was coded and entered into Stata to check for obvious errors. When entering data, the well-known maxim “rubbish in, rubbish out” (Saunders et al., 2012:417) was applied. The researcher used Stata statistical software to attach labels and codes to each variable such as age, gender, level of education and experience (Saunders et al., 2012:418). The researcher developed a database, which encompassed the collection of data files, and linked files so that storage, retrieval and updating were simplified.

#### **6.8.5.3    *Checking errors***

This checking process allowed for the identification of illegitimate codes and common errors. The researcher systematically checked for errors per respondent that could have occurred during the coding or data entry stage and made the necessary amendments (Saunders et al., 2012:430). The researcher followed the aforementioned steps to prepare the data for both descriptive and inferential statistical analysis.

#### **6.8.5.4    *Application of descriptive statistics***

The researcher used descriptive statistics to summarise different data obtained from the research instrument. The grouped data were aligned to the research questions and objectives to show trend analysis and proportions. This process enabled the researcher to make a comparison between the different variables. However, the descriptive statistics were not enough to extrapolate the obtained data. Inferential statistics methods were applied to examine the relationships of variables, differences, and trends of statistics.

#### **6.8.5.5    *Inferential Statistics***

The study used inferential statistics in the presentation and analysis of the quantitative research objective 3. A regression analysis was used to determine the relationship between a set of independent variables and a dependent variable. This analysis incorporates

hypothesis tests that help determine whether the relationships observed in the sample data exist in the population (Saunders et al., 2019).

The information, which was collected from the respondents in the study, was transformed into numerical data by identifying key variables within each set of questions. Then, the data was imported into SPSS 2018 software. Creswell and Plano Clark (2011) define quantitative data analysis as a systematic approach to investigations during which numerical data is collected and/or the researcher transforms what is collected or observed into numerical data. It often describes a situation or event; answering the 'what' and 'how many' questions a person could have about something and provide examples of how this is relevant to the current study. This is research that involves measuring or counting attributes (i.e., quantities) (Bryman & Bell, 2015).

#### **6.8.5.6 Exploratory factor analysis**

To determine the entrepreneur skills required from school leavers to be able to enter self-employment a set of questions were asked and the participants were asked to rate how important each skill was. The entrepreneurship skills were derived from extant literature (*refer to chapter 5*). The responses were rated as 5 for very important skills, 4 for important skills, and 3 for not important.

The mean scores of the entrepreneurship skills were calculated and all the skills had a mean of approximately 5, which indicated that all the skills were very important and were required of school leavers to enter self-employment. The mode (5) and mean (5) were also calculated and indicated that all entrepreneurship skills were very important. An individual frequency table for each skill also proved that most of the participants indicated that all the entrepreneurship skills provided were very important.

Exploratory and confirmatory factor analysis was carried out after the descriptive statistics (Leavy, 2017). Exploratory Factor Analysis (EFA) was done to reduce the dimension of the data set. EFA explains the variance in the observed variables in terms of underlying latent

factors. In this research, factor analysis allowed the opportunity to obtain insight into the variables that represent entrepreneurship skills. To carry out factor analysis, the researcher calculated sample adequacy using the Keiser-Meyer-Olkin (KMO) test for sampling adequacy and Bartlett's test for sphericity . Both indicated that the data were suitable for factor analysis.

#### **6.8.5.7 *Chi-square likelihood ratio***

To test for the Likelihood Ratio of the demographics and the factors, the researcher used the Chi-square test. According to Saunders et al. (2016:538), the Chi-square test assesses the likelihood of the data by comparing it with what is expected. In this view, the likelihood of the demographics was compared with the 11 factors to ascertain the relationships. In order to have a clear understanding and appreciation of the participants' perspectives regarding the entrepreneurship skills required to enter self-employment the study further carried out Probit and Logit regression analysis.

#### **6.8.5.8 *Logit and Probit interpretations***

Logit and Probit regression analysis were used in the study to increase robustness, internal validity and logic in predicting group belongings (Ghauri & Gronhaug, 2010:189) and to improve the credibility of the entrepreneurship framework. Logit and Probit models are used to predict the probability of an event occurrence (Ghauri & Gronhaug, 2010:187). This study used both models to ascertain the probability of using entrepreneurship skills.

Logit and Probit models give similar results (Ghauri & Gronhaug, 2010:187; Nagler, 1994). However, the parameters estimated in the Logit regression tend to be 1.6 to 1.8 times higher than they are in the Probit model (Ghauri & Gronhaug, 2010:187; Nagler, 1994). The use of the Probit and Logit model is largely one of research convenience as the results are generally indistinguishable. The models also fit well in estimating data with a dichotomous dependent variable (Nagler, 2018). In this case, the dependent variable is binary.



The interpretations of this study were based on Probit estimations in cases where the Probit estimations failed to provide clear results (Nagler, 1994). The Logit model is used for comparison purposes. The study also used intuition to analyse some factors not identified in the factor analysis but identified in the reliability test.

The skills were loaded into two main factors, which were then named Skillset 1 and Skillset 2 based on the component analysis. The average score of the two individual skill sets was calculated and was used as the independent variable in the regression model. The number of years a business was in operation was used as the dependent variable as this provided depth in terms of knowledge and experience within which to inform the questions that were at hand.

The regression model was provided by the following equation:

$$\hat{Y} = b_0 + b_1x_1 + b_2x_2 + \cdots + b_px_p$$

- Where  $\hat{Y}$  is the predicted or expected value of the
- dependent variable  $x_1$  through  $x_p$
- $p$  distinct independent or predictor variables.
- $b_0$  is the value of  $Y$  when all of the independent variables are equal to zero.

## 6.9 QUANTITATIVE RELIABILITY AND VALIDITY

When choosing an instrument, or developing a new instrument, for a study, a researcher is expected to consider the relevance of the instrument to research questions as well as the quality of the instrument (Bryman & Bell, 2015; Creswell & Creswell, 2018). Quality may traditionally be understood in terms of such notions as validity (the extent to which an instrument measures what it claims to measure, rather than something else) and reliability (the extent to which an instrument can be expected to give the same measured outcome when measurements are repeated) (Taber, 2017).

Reliability analysis is used to determine the extent of internal consistency, which is represented by a set of items in a construct (Zikmund, Carr, Griffin & Babin, 2013). For this study, reliability analysis was used to determine the extent to which the items within each construct were consistent. According to Ithantola, & Kihn (2011). the optimal minimum alpha statistic is 0.7. Scholars, such as Ursachi, Horodnic, & Zait (2015), argue that even alpha statistics of 0.6 are still reliable, which is particularly so for social studies. The reliability tests for each construct revealed a combined alpha value of 0.813 that is greater than 0.7. The alpha value indicated that the tool was reliable.

## **6.9 DATA INTEGRATION**

Data integration refers to the process of incorporating both qualitative and quantitative data analysis (Creswell & Plano Clark, 2011:237). The researcher used the data integration process to confirm (quantitative) results and explore (qualitative) which included entrepreneurship skills for self-employment to enhance the framework for the development of entrepreneurship within the secondary school education system in Zimbabwe. The study made use of the triangulation of the data to develop an informed framework for entrepreneurship within the secondary school education system in Zimbabwe. A conclusion was drawn using concurrent mixed research designs (Teddlie & Tashakkori, 2009:152).

Although critics of the concurrent mixed research design argue that data integration produces poor results due to unrepresentative qualitative sample, Cooper and Schindler (2014) argue that data integration assists in coming up with relationships and to counter shortfalls in mono studies. Data integration is also essential in that it minimises the weaknesses of the two research approaches: thus, providing a high degree of validity (Creswell & Plano Clark, 2018). In this study, data integration was essential in that it allowed for the development of the proposed framework with rigour and diverse opinions. Findings from research objectives 1 and 2 which were qualitative informed the researcher of the integral aspects of teacher training, methodology, resources and policies that were required for the success of EE within the secondary school education system in Zimbabwe. Quantitative findings informed the researcher of the entrepreneurship skills that were needed to be incorporated in EE programs in the Zimbabwean education system particularly

for students to enter self-employment. The adoption of the concurrent mixed design research in the development of entrepreneurship within the secondary school education system in Zimbabwe brings into context different convergent and divergent perspectives, which are crucial in the education systems spectrum.

## **6.10 MIXED METHODS VALIDATION**

The researcher applied the foundation elements in improving the validity of the research. Foundation elements were used to improve construct validity, as the researcher made a comparative analysis of prior perceptions with the data. The researcher provided inferential consistency by following chronology and consistency in interpreting the quantitative data. Further, the researcher made an inference from empirical entrepreneurship skills required for self-employment studies to understand the strength of their research design, which was to be utilised in the present research to improve its credibility and contribution.

Due to conflicting philosophies embedded in qualitative and quantitative research, researchers do not agree on the suitable way to validate mixed research (Bryman & Bell, 2016d; Creswell & Creswell, 2018; Tashakkori & Teddlie, 2009). However, Dellinger and Leech (2007) suggested the validation framework as a contribution to validity in mixed research methods. The comprehensive framework provides insight into the validation of mixed methods using foundation elements, elements of construct validity, inferential consistency and utilisation/consequential elements.

The researcher compared the respondents with different characteristics on given variables. The respondents' experiences on entrepreneurship training and entrepreneurship teaching were analysed, examining interrelationships of codes and categories. Face validity in qualitative research does not have a good measuring index. However, the researcher used experts (statisticians) and auditors to help in judging the degree to which qualitative and quantitative data is neutrally measured and what it is supposed to be measured (Tashakkori & Teddlie, 2009). Moreover, the researcher applied triangulation by making a comparative

analysis of the quantitative and qualitative data obtained in the study. Triangulation remains the most utilised principle in mixed research (Ridenour & Newman, 2008).

It is imperative to note that the validation of qualitative and quantitative research was done before the validation of the mixed method. This enabled the researcher to check the consistency and relationships of the different data. The rigour of the design validity (the extent to which quantitative data was designed), and the analytical (collection of qualitative data) and inferential validity (superiority of interpretation) are crucial in mixed methods validation (Bryman & Bell, 2015).

## **6.11 ETHICAL CONSIDERATIONS**

Conducting a research study requires ethical considerations, which include the right to be informed, obtaining permission, voluntary participation, the right to anonymity, legitimate data, intrusiveness, and the right to be safe (Burns, 2005; Sanjari, Bahramnezhad, Fomani, Shoghi & Cheraghi, 2014). The study was ethically cleared by the University of the Free State's Faculty of Economic and Management Science's Ethics Committee, and an approval letter was provided (refer to Annexure 1) only after the data was collected.

In this study, all the parties involved, such as the CZI, the Principals of Teachers Colleges and the Principal Education Directors at the Ministry of Primary and Secondary Head Office, were informed about the intention to undertake the research, and their written informed consent was sought. Leavy (2017) states that informed consent must be obtained before beginning research. Moreover, time should be set aside to check in with research participants and review consent issues, including the voluntary nature of the study and their right to withdraw.

The following steps were taken in this research in regard to ethical considerations:

- Permission to conduct the empirical investigation was sought in each of the participating organisations.

- The Ministry of Primary and Secondary Education (MoPSE), The Ministry of Higher and Tertiary Education (MoHTE), and the CZI provided letters in which permission was granted to carry out the research (refer to Annexure 2 and 4).
- In addressing voluntary participation, all the participants were given sufficient details on both the questionnaire and the interview methods of the study, which allowed for informed decision-making about their participation. The rights of individuals to participate or to not participate were respected. Leavy (2017) further stresses the importance of seeing how participants are doing, to learn if they are experiencing any discomfort, stress, or unanticipated burden, from their participation.
- The confidentiality and anonymity of the participants/participants and their organisations were ensured by the use of labels to represent them. In this way, the reputation of individuals and organisations was protected as no results could be linked to an identifiable participant/organisation.
- Research assistants collected data from the organisations involved in this study and all collected data, written or audio, was stored safely and utilised for this study only.
- The researcher included the confidentiality clause in the consent forms; minimised chances of recordings among employees; and explained thoroughly the purpose of the interviews to promote honest participation among the employees.
- The researcher sensitised the participants to avoid the use of other people's names when providing references during the interviews, especially group interviews. Where such reference could be made, the researcher ensured that such names were omitted during qualitative data analysis and report preparation. These attempts mitigated the reputation of risk, together with professional and personal relationships risk, among the participants and their organisations.
- The researcher conducted the study in an objective, unbiased manner, and followed scientifically sound methods and procedures of obtaining data, interpreting it, and in making conclusions to ensure the credibility and transferability of the results. For instance, the researcher ensured that the data were accurate by avoiding fabrications, fraudulent materials and omissions; was conscious of personal presumptions and ensured professional, harmonious researcher-participant relationships; and avoided errors on practices of handling data, such as transcriptions of qualitative data.

To minimise the possibility of intrusion in the autonomy of study participants, economic risk, and researcher's risk, the researcher conducted interviews at or near the work premises of the participants, at their convenient time. Hence, the researcher also minimised the impact of data collection on organisations' operations. Moreover, the researcher ensured that the results of this research did not bring harm to the participants.

## **6.12 CHAPTER SUMMARY**

This chapter presented the research methodology, which provided insight into the philosophy guiding the research, the research approach, and the exact design according to which the study was executed. Moreover, an overview of the mixed-method approach, informed by both positivist and relativist philosophies, was presented. In addition, the concurrent qualitative and quantitative methods used for the collection and analysis of data were outlined.

# CHAPTER SEVEN: QUALITATIVE DATA PRESENTATION AND ANALYSIS

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## 7.1 INTRODUCTION

The previous chapter provided a detailed account of the methodology that was used during the research. This chapter presents findings according to the research objectives. The main research objective was to develop a framework for incorporating entrepreneurship into the secondary school education system in Zimbabwe. Specifically, this chapter presents the qualitative findings and analysis of the research objectives:

1. To establish the current status of entrepreneurship training in the Zimbabwean secondary school education system vis-à-vis the international community.
2. To examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe drawing from experiences of other countries.

This chapter analyses data from the qualitative component of the study using grounded theory principles. The concepts, which guided the framing of the in-depth interviews, were adopted and presented within the parameters set by the literature reviews and the methodology. Any additional findings arising through the analyses, for which evidence has been gathered, are presented under the appropriate headings.

The next section presents the qualitative process.

## 7.2 QUALITATIVE PROCESS

The qualitative population comprised of ten participants, consisting of five Principals of Teachers' Colleges and five Provincial Education Directors in the Ministry of Primary and Secondary Education in Zimbabwe. These selected participants have direct experience in the education sector and teacher training. The semi-structured questions were pilot tested with

four participants, comprising one Provincial Education Director, one Principal and two research experts.

The two research experts were drawn from the University of the Free State, South Africa, and Chinhoyi University of Technology, Zimbabwe, respectively. The pilot testing was done to remove ambiguous and irrelevant questions. Hence, the pilot testing noted and removed inconsistent and ambiguous phrases and statements.

The interviews were conducted after the approval of the gatekeepers (refer to Annexures 2 & 4). The participants were given the interview guide (refer to Annexures 3 & 5) before the initial interview to familiarise themselves with the questions. It is important to note that for consistency, the interviews were conducted at the participants' workplace. The interviewer explained the purpose of the research and the interviewee consented to the recording of interviews. Table 7.1 presents the schedule of the in-depth interviews for the Principals of Teachers Colleges.

**Table 7. 1: Interview Profile 1**

Code name	Position	Department	Number of participants
Participant 1	Principal of Teachers College	Ministry of Higher & Tertiary Education, Innovation Science & Technology Development.	1
Participant 2	Principal of Teachers College	Ministry of Higher & Tertiary Education, Innovation Science & Technology Development	1
Participant 3	Principal of Teachers College	Ministry of Higher & Tertiary Education, Innovation Science & Technology Development.	1
Participant 4	Principal of Teachers College	Ministry of Higher & Tertiary Education, Innovation Science & Technology Development.	1
Participant 5	<b>Saturation reached</b>	Ministry of Higher & Tertiary Education, Innovation Science & Technology Development.	1



Table 7.1 depicts code names, identified as Participant 1 to Participant 5, which resemble the interview guide questions 1-5 (refer to Annexure 3). The second column identifies the respondents in the research, who in this case are Principals of Teachers Colleges in the Department of Education. The responses from the in-depth interviews were digitally recorded with the consent of the participants (see Annexure 2), transcribed into a written format, and coded using grounded theory principles called a systematic procedure (Strauss & Corbin, 2007). Although the population consisted of 10 intended participants, saturation was reached at five Principals of Teachers Colleges: thus, participant 5. Table 7.2 below presents the schedule of the in-depth interviews for Provincial Education Directors.

**Table 7. 2: Interview Profile 2**

<b>Code name</b>	<b>Position</b>	<b>Department</b>	<b>Number of participants</b>
<b>Participant A</b>	Provincial Education Director.	Ministry of Primary & Secondary Education – Harare.	1.
<b>Participant B</b>	Provincial Education Director.	Ministry of Primary & Secondary Education – Mashonaland West.	1
<b>Participant C</b>	Provincial Education Director.	Ministry of Primary & Secondary Education – Mutare.	1
<b>Participant D</b>	Provincial Education Director.	Ministry of Primary and Secondary Education – Matebeleland North.	1
<b>Participant E</b>	<b>Saturation reached</b>	Ministry of Primary and Secondary Education – Midlands.	1

Table 7.2 depicts the code names, identified as Participant A to Participant E, which resemble the interview guide questions 1-5 (refer to Annexure 5). The second column identifies the respondents in the research, who are Provincial Education Directors in the Ministry of Primary and Secondary Education. The responses from the in-depth interviews were digitally recorded with the consent of the participants (Annexure 4), transcribed into a written format, and coded using grounded theory principles called a systematic procedure (Strauss & Corbin, 2007). Although the population consisted of 10 intended participants, saturation was reached at five Provincial Education Directors; thus, participant 5 (see Table 7.2, column 1 and 4).

The qualitative findings were essential for a better understanding of the entrepreneurship training components from a principal's perspective and entrepreneurship teaching from a principal education director's perspective.

The selected participants are involved in the education sector in Zimbabwe, whereby Principals of Teachers Colleges train teachers, whilst the Provincial Education Directors oversee the teaching and learning in all primary and secondary school provinces in Zimbabwe; hence, they provided insight by answering questions regarding the research objectives. The qualitative results, using grounded theory principles, provided an investigative and in-depth understanding of the phenomenon (Strauss & Corbin, 2007:107). The qualitative findings were essential in developing the proposed framework for entrepreneurship within the secondary school education system in Zimbabwe.

The grounded theory qualitative systematic design principles of Strauss and Corbin (2007), which were used for this study, involve the following steps:

1. The open coding stage, which involves reading through the collected data and deducing meaning.
2. The axial coding stage, which involves identifying relationships amongst the coded data.
3. The selective coding stage, which includes reflecting on emerged core variables or themes (thematic analysis).

The in-depth interview questions were guided by the following research objectives:

1. To establish the current status of entrepreneurship training in the Zimbabwean secondary school education system vis-à-vis the international community.
2. To examine whether the concept of entrepreneurship can be taught successfully to secondary school students in Zimbabwe drawing from experiences of other countries.

Open and axial coding was done for research objective 1, and seven themes emerged. These themes will be analysed in the next section.

### **7.3 THE CURRENT STATUS OF ENTREPRENEURSHIP TRAINING IN THE ZIMBABWEAN SECONDARY SCHOOL EDUCATION SYSTEM VIS-A-VIS THE INTERNATIONAL COMMUNITY.**

The first research objective was meant to establish the status of entrepreneurship education in Zimbabwe secondary schools in comparison to policy, methodology and practices in the international community. The variables used during the in-depth interviews were adopted from the literature review, as referred to previously (section ???). To explore these variables, the study used seven distinct aspects, underlying the status of entrepreneurship training in Zimbabwe secondary schools viz a viz the international community. Data was obtained from one-on-one in-depth interviews with relevant Principals of Teachers Colleges. The seven aspects were used as key codes in the qualitative analysis and discussion.

The next section presents the selective coding analysis reflecting the different themes, which emerged from the axial coding stage. The identified ideas (40) were colour-coded to correlate with the emerged themes in the selective coding stage.

**Table 7.3: Emerged Themes – The current status of entrepreneurship training in the Zimbabwean secondary school education system vis-a-vis the international community.**

Question	Emergед Themes	Participant Interviewed
1. Professional Development Programmes	Lack of professional development programmes	1, 3, 4, 5
	The new curriculum met professional development needs	2
2. Creativity and innovation	New teaching methods	1, 2, 3, 4, 5
3. Existence of entrepreneurship training programmes	Inexistent entrepreneurship training programmes	1, 3, 4 & 5
	Entrepreneurship training was being incorporated	2
4. Entrepreneurship training	Lack of entrepreneurship training	1, 2, 3, 4 & 5
5. Compulsory teaching of entrepreneurship education	Compulsory teaching of entrepreneurship education	1, 3, 4 & 5
	Caution against its implementation too soon	2
6. Conducive environment to foster entrepreneurship	Lack of a conducive environment	1, 3, 4 & 5
	A conducive environment is present	2
7. Challenges that inhibit entrepreneurship training	Entrepreneurship and economic development	1, 2, 3, 4 & 5

Table 7.3 presents seven major themes, namely the lack of professional development programmes; new teaching methods; inexistent entrepreneurship training programmes; the lack of entrepreneurship training; compulsory teaching of entrepreneurship education; two factors that support the integration of entrepreneurship, which are society's attitude and the lack of a conducive environment; and entrepreneurship and economic development. These seven themes were derived from the interview guide questions (refer to Annexure 4).

The next section will reflect on the emerged themes, as well as secondary literature substantiation thereof.

### **7.3.1 Existence of Professional Development Programmes for Teachers in Secondary School Education in Zimbabwe to Meet the Current Changes in the World.**

The major theme that emerged is the lack of professional development programmes.

*Workshops, seminars and in-service programmes are part and parcel of professional development programmes that we undertake to encourage teachers to develop fully in their discharge of duties. I feel that we are not doing enough to meet the current changes in the world of today. (Participant 1)*

Participant 1 acknowledges that there is the existence of professional development programs in Teachers Colleges in Zimbabwe but bemoans the lack of professional development programmes in meeting today's educational challenges. The European Union 2014 report on the guide for educators emphasise the need for high-quality programmes for the professional development for teachers to exist within teacher training colleges as they are meant to provide support and an opportunity for teachers to experience entrepreneurship education during their initial training. This would inevitably allow them can catch up with the current educational trends and latest developments in EE. Nani (2016) suggests that teachers in Zimbabwe need to have experience and knowledge regarding entrepreneurship education to be able to teach students using experimental methods. In this sense, it can be said that the professional development programmes for all teacher training must include EE.

The emergence of this major idea confirms that in Sub-Saharan Africa, (*which Zimbabwe is also part of*), there is a lack of comprehensive entrepreneurial teacher training programmes that enable teachers to be sufficiently competent to demonstrate intimate knowledge in the area of entrepreneurship (Legas, 2015). Additionally, a lack of awareness among many teachers regarding the true approach for implementing EE was noted, which, according to the EU, is likely due to the teacher not receiving education about EE (European Union, 2015).

*With the complexities of the world, we now have called upon each educator to transform teaching methodologies, upgrade our schools and ensure that all teachers keep up with world standards. We have not yet reached that stage. (Participant 3).*

The views echoed by participant 3 adversely affect entrepreneurship training in the Zimbabwean secondary school education system, when compared to the international community. This central theme is consistent with the view of Axmann et al. (2015), that continuing professional development, which includes in-service training, constitutes a fundamental and increasingly important link in the teacher/trainer learning chain. Without continual updating of knowledge, skills and competencies, teachers and trainers run the risk of their skills becoming rapidly obsolete.

Similarly, Jensen and Haara (2016) advocate that teachers play a prominent role as curriculum executors, but undeniably, they are learners too. In the same vein, Mawonedzo, Tanga, Luggya & Nsubuga (2020) acknowledged that becoming relevant and consistent with the educational development needs the teaching fraternity in Zimbabwe to enrich themselves constantly with the necessary knowledge related to their work and profession. Hence there is an urgent need in the Zimbabwean teacher training colleges to continuously change teaching methodology, especially concerning their specialist fields of teaching.

*We haven't reached a stage where we educate our teachers and prepare them for the current and future challenges of the world of today. (Participant 4)*

According to Fatoki (2014), no matter how good pre-service training for teachers is, it cannot be expected to prepare teachers for all the challenges they will face throughout their careers. Education systems, therefore, should seek to provide teachers with opportunities for in-service professional development in EE programmes to maintain a high standard of teaching and to retain a high-quality teacher workforce. With the emergence of high unemployment rates in Zimbabwe especially among youths which Ndofirei and Rambe (2017) believe have oscillated around 80% in 2017, the unemployment situation has pushed some scholars (Dumbu 2014:101; Garwe, 2014:2) to advance EE's impartation of appropriate

entrepreneurship skills, knowledge and attitudes in teacher development and training as the panacea to the economic problem.

Marginal themes that emerged concern the new curriculum.

*The competency-based curriculum introduced in 2017 has brought about a new paradigm in education. We need to transform the teacher education programmes in colleges to meet the current demands of the world. (Participant 2)*

Participant 2's views are supported by Alvos (2011) and Nani and Mpofu (2016) who state that there is consensus that the quality of an education system cannot be higher than the quality of its teachers. As such, Zimbabwe should invest in the continuous learning of their teachers as a major engine for the improvement of both teacher competency and student entrepreneurial development.

Another minor idea that came out of the study was that the current competency-based curriculum met the needs day-to-day needs in teacher education but needed to be extended to meet the ever-changing times:

*Although our professional development programmes are within the set guidelines of the curriculum, we are not extending our reach as educators to meet the current and futuristic challenges of the world of today that are changing by the day. (Participant 5)*

This suggestion is similar to an approach of Neck & Greene (2011:23), which states that "The entrepreneur must know something about everything and everything about something; entrepreneurship education is a critical policy tool in building the knowledge, skills, attitudes and behaviours required for entrepreneurship against the traditional education programmes that prepare students for a conventional career". Thus, a new approach of looking at ways of how teachers can be transformed to think entrepreneurially, teach students EE and produce students who are appreciative of entrepreneurship needs to be made, particularly from teacher training colleges with direct responsibility to produce teachers who will go out in

schools to teach students. The next sections will examine teaching methods, students' creativity, and innovation towards self-employment.

### ***7.3.2 Teaching Methods, Students' Creativity and Innovation Towards Self-Employment***

A European Union report (2014) on the development of EE within teacher training stresses that as a key competence, entrepreneurship requires a way of teaching in which experiential learning and project work plays a major role. Lackeus (2015) confirms that teachers do not provide students with the answers but help them to research and identify the right questions and find the best answers. The main objective is this process is to help students discover their individual ability to think outside the box', viewing this as an essential entrepreneurial competency.

The participants all agreed that teaching methods in secondary schools should change towards active learning strategies, where teachers are given opportunities to explore and, in the process, learn how to be creative and innovative. According to Leffler and Fark-Lundqvist (2014), to inspire pupils and help them develop an enterprising attitude, teachers need a wide range of competencies related to creativity and innovation, a school environment in which creativity and innovation are encouraged, and the approach that mistakes are valued as a learning opportunity.

The first central idea that emerged, which was supported by all the participants, was that there was a need to transition from the traditional teaching methods to active project-based learning methods.

*Teachers in secondary school should shift their attention from the old traditional ways of teaching and focus more on creativity and innovation as a basis to encourage self-employment as a career path. (Participant 4)*

Another participant supported this central theme:



*Teaching methodology needs to change towards innovation and creativity and the acquisition of skills for students to appreciate self-employment as a career choice.*  
(Participant 5)

The participants revealed that if ever the acquisition of innovation and creativity skills was to be achieved in secondary school students, a shift from a result orientated to a skill-based perspective was needed for students to appreciate the idea of selecting self-employment as a career choice. The idea is further supported by Nani (2016) who indicated that entrepreneurship is not taught in the primary and secondary school education system and implored the government of Zimbabwe to introduce it in the school curriculum at the primary level to allow learners to lay a solid foundation for creativity, nurturing and innovation of business ideas for use later in life.

*There is still a huge emphasis on the attainment of results as opposed to skill acquisition in most of our schools and hence there is an urgent need to shift focus now to skill acquisition to promote self-employment.* (Participant 2)

The participants' responses are similar to the views of Mwenje (2018), who asserted that entrepreneurial education should be undertaken in an entrepreneurial way. The entrepreneurial environment and the real world of business are constantly changing, while traditional methods of training are losing ground. In this type of training, new, diverse, learnable and teachable, and unpredictable ways should be used, which are student-centred and not related to a specific group of people.

*The present Zimbabwean [school] curriculum is still fairly new to our education system and does emphasise creativity and innovation as skills to be taught but I feel that we need to deal with a teaching methodology that allows for such skills to be learnt by our pupils.* (Participant 1)

Booyesen (2015) offers a solution to the issue presented by participant 1 and states that the business environment is characterised by varied and continuous changes. In this environment, a readymade roadmap does not apply. Therefore, the process of growing any

business in an unknown realm requires one to create a new roadmap to find your way every time. In such a world, stated Bygrave and Zacharakis (2011), the entrepreneur must learn continuously. While traditional education methods focus more on educational content, EE focuses on teaching creativity, innovation, problem-solving and risk-taking skills which can be considered as a new road map for unknown territories for Zimbabwean secondary school education.

It is increasingly clear that Zimbabwe should build capacity for 21st-century learning and teaching and develop digital technology use. Nyoni (2018) assert that many teachers in Zimbabwe are particularly lacking in information technology literacy, information literacy, media literacy, as well as digital collaboration skills. These limitations may affect their teaching performance in leading, guiding, modelling for, and probing students in evidential explanations to help them acquire 21st-century entrepreneurial skills in a student-centred and inquiry-based learning mode.

Bennett (2016) proposed innovative methods of teaching entrepreneurship as a strategy that demands the teacher to stimulate learning and encourage students to rediscover themselves in terms of their abilities, knowledge and attitude. Thus, the features as identified by Gibb (2012f), are that students should learn from one another, are practical conscious, debate and exchange ideas, are guided to self-discovery, are exposed to an informal and flexible learning atmosphere, and learn from their mistakes and by solving problems. In furtherance of the above views, Jones and Iredale (2010) suggested that entrepreneurship education demands experiential learning styles, creative problem solving, and learning by doing to arouse the interest of students.

The next section discusses the responses from the participants on the existence of entrepreneurship training programmes for trainee teachers.

### ***7.3.3 Existence of Entrepreneurship Programmes for Trainee Teachers.***

Mahadea, Ramroop & Zewotir (2011) advocate for hands-on training opportunities to support and improve entrepreneurship teaching practice. According to Nani and Mpofu

(2016), an entrepreneurial teacher training programme addresses the teachers' own entrepreneurial side.

*Not much entrepreneurship training has been incorporated in teacher training colleges, to say the least. We still have the same curriculum as before, since independence in 1980, and that needs to change. (Participant 1)*

Neck (2016) asserts that educational and professional achievement is predicated on teachers having well-developed key competencies; hence, a comprehensive education programme in Zimbabwe teacher training colleges designed to extend and improve the quality of educational services particularly in the area of EE is needed to close the gap that participant 1 indicated.

*Our college offers entrepreneurship training for all students, especially in areas where teachers are involved in Tech Vocational programmes. (Participant 2)*

Participants 2's views offer a glim of hope for Zimbabwean education, particularly in secondary school. The African Outlook report on entrepreneurship revealed that EE in Sub-Saharan Africa has been embraced at a slow pace, particularly in primary and secondary schools due to the limitation of access to resources, a lack of highly trained teachers, and government-regulated policy on entrepreneurship considerations, training and teaching. Perhaps this is the case with Zimbabwe having only one teacher training college embracing entrepreneurship (Nani & Mpofu, 2016). The non-existence of entrepreneurship programs is further reiterated and supported by participant 3 who states that,

*There is very little discussion on entrepreneurship in teacher training colleges as opposed to the university programmes where it is structured. (Participant 3)*

Similar findings were provided in a GEM 2011 South Africa report that stated that the poor quality of EE programmes in teacher education institutions and an insufficient increase of teachers taking EE as a subject offering in secondary schools were major limiting factors to

any significant increase in entrepreneurial activity in South Africa (Simrie, Herrington, Kew & Turton, 2011:63). In fact, it is only in Zimbabwean universities where there is a concerted drive by the government through the Ministry of Higher and Tertiary Education, Innovation Science & Technology Development to re-orientate the country's higher education system towards equipping students with entrepreneurial skills and attitude as means to curb youth unemployment (Ndofirepi, 2016), something that must quickly be addressed with the introduction of EE within the secondary school curricula.

*Entrepreneurship training is fairly new and needs time, resources and manpower to adopt it into the teaching of trainee students. (Participant 4)*

Lorz, Mueller, and Volery (2013:124) posit that “continuous improvement of entrepreneurship education can only take place if educators understand the implications of entrepreneurship training...” The absence thereof of entrepreneurship training in Zimbabwean teacher training colleges will dampen any EE aims and goals. Studies carried out by Uleanya (2017) and Singer, Amoros & Arreola (2014) revealed that emphasis from the government on competency-based entrepreneurship training programmes could play a major role in increasing the entrepreneurial involvement of students, not only through formal teaching but also through the introduction of learners to positive role models with an entrepreneurial background.

*We are in the process of formalising entrepreneurship structures in line with the new Ministry of Higher and Tertiary Education guideline 5.0. (Participant 5)*

Conversely, the lack of government commitment to EE within the secondary school education sector would perpetuate the unemployment crisis, which has implications for the country's social growth, economic progress and global competitiveness. It is therefore crucial for the Zimbabwean government to come up with an entrepreneurship legislative framework as a long-term priority for increasing entrepreneurial activity and success through education (Ndofirei & Rambe, 2017, Nani, 2016). The next section provides insights on the consideration of entrepreneurship training for teachers.

#### **7.3.4 Consideration of Entrepreneurship Training for Teachers.**

Seikkula-Leino et al. (2010), in their study on the development of entrepreneurship education, recommend that every student and teacher should benefit from at least one experience of training on the key topics and methods related to entrepreneurial learning and entrepreneurship education during their career.

*In my view, teachers seem to have some, but limited, knowledge about how to conduct entrepreneurship education in practice hence training is needed. (Participant 4)*

In this case, the Zimbabwean education system should include EE within its various education ministries as curriculum reform, making the education of teachers in training colleges a key priority before moving on to students. The idea is supported by participant 3 who states that,

*Curriculum reform should not only be focused on students but as well on teacher training, hence there is an urgent need to change the teacher education curricula and promote entrepreneurship training for teachers. (Participant 3)*

Neck (2016) suggests a strong need for the development of teacher learning in terms of reflection, which should be developed in teachers' basic and in-service training.

*Training courses are needed for teachers that focus primarily on practical approaches including active, participatory methods, which are suitable to create ownership, especially in students as they take part in entrepreneurship. (Participant 5)*

The European Union report (2014c) on the guide for educators supports the treatment of entrepreneurship in the training of teachers not as an isolated skill, but as a concept that requires key competencies such as creativity, technological awareness and project management. The Report indicates how in every curriculum, there are starting points for entrepreneurial teaching and aspects that lend themselves well to entrepreneurial learning. Hence, the need to promote this competency, in its aspects of knowledge, skills and attitudes

through specific programmes on entrepreneurial training in Zimbabwe which is also advocated by different authors (European Commission Eurydice Report, 2012; European Union, 2017; Gielnik, Spitzmuller, Schmitt, Katharina Klemann & Frese, 2014; Paco, Ferreira & Raposo, 2016; Nani, 2016).

*For entrepreneurship education to become a tool that enhances the capability of young people to be more entrepreneurial, it must be incorporated into all forms of learning, education and training. (Participant 2)*

Johannisson (2015) admits that the distinctiveness of entrepreneurship mirrors the actual creation of something new and, in this process, learning and social interaction are core. Given the unprecedented influence of globalisation, and the skills sets required by employers today entrepreneurship training for teachers has to be a priority of the Zimbabwean government if economic developments are to be achieved.

The next section outlines compulsory teaching of entrepreneurship education as a transversal competence.

### **7.3.5 Compulsory Teaching of Entrepreneurship Education as a Transversal Competence.**

Mwenje (2018) asserts that entrepreneurship education can be integrated into general education in different ways. A cross-curricular approach can be taken; it can be integrated in existing subjects, or it can be introduced as a separate curriculum subject. This means that in all of the areas above, tailor-made solutions have to be developed for every individual setting. Participant 1 affirms the need for EE to be taken as a compulsory subject in secondary schools.

*I agree that entrepreneurship should be a compulsory subject taught within the secondary education system to each student. The input that entrepreneurship education has on the overall economic development of a nation cannot be ignored. (Participant 1)*

Participant 2 concurs with the compulsory teaching of EE aspect within the secondary school education system and states that,

*I do advocate for compulsory teaching of entrepreneurship in secondary schools considering the net effect entrepreneurship education has on teaching for the world of tomorrow. (Participant 2)*

Participant 4 further outlines an important key factor to put into consideration when developing a framework for entrepreneurship which is placing equitable levels of acceptance on EE as any other subject offering in secondary school.

*There is a general tendency in most of our secondary schools to concentrate mainly on areas such as Mathematics, Sciences, Accounting and Business Knowledge that bring about better university programmes for students to acquire professions later in life that is well paying. This neglects the element of entrepreneurship as an important factor. I think that it should also be considered as important and, as such, should be compulsory. (Participant 4)*

The participant agrees with all other participants and highlights the major importance of EE.

*I agree that entrepreneurship should be a compulsory subject taught within the secondary education system to each student. The input that entrepreneurship education has on the overall economic development of a nation cannot be ignored. (Participant 5)*

The assertions made by all the participants in response to considering EE as a compulsory subject within the secondary school system speak volumes of what needs to be done in Zimbabwe. Ndofirei and Rambe (2017) and Nani (2016) are in support of this view when they stress that if a school is said to be implementing Entrepreneurship, then, the whole entrepreneurial process has to be followed and that can be achieved if learners are exposed to the subject from an early age thus, laying a solid foundation for the setting up of sustainable businesses later in life.

Introducing EE in Zimbabwean schools would mean taking students out of the classroom, as well as getting teachers and educators out of their offices to share practical entrepreneurial experiences with students (Vanevenhoven, 2013). This, according to Vanevenhoven (2013), is not continued incremental adjustments or extensions of existing pedagogies, but a fundamental transformation of existing models, an intellectual revolution, which must be led by fearless educators and a dedicated policy guideline framework.

### **7.3.6 Creation of a Conducive Environment to Foster Entrepreneurship Development Programmes Within Trainee Teachers.**

One of the ways to improve the quality of entrepreneurship education programmes is to create a learning environment in which people can experience the key dimensions of entrepreneurship's "lifestyle" (Gibb, 2011e). This is referred to as a learning environment for entrepreneurship which is hugely supported by participant 1.

*There is a need to include entrepreneurial-oriented education in teachers' colleges with clear educational concepts seeking to equip student teachers with the ability to teach for the world of tomorrow. This concept should be embedded in the entire curriculum. (Participant 1)*

Gustafsson-Pesonen and Remes (2012) examined the promotion of entrepreneurship through the development of the learning environment, indicating that individuals learn better through their preferred methods. This means the particular learning environment if established in teacher training colleges in Zimbabwe will prepare teachers to teach EE, use the environmental spaces provided to fully equip students on business start-up ideas thereby mitigating against the unemployment challenges in Zimbabwe.

*Our colleges need pragmatic and learning-based stations that will provide the much-needed experience for our student teachers to deliver. Entrepreneurial education should be undertaken in an entrepreneurial way; hence, the need to work towards the changes. (Participant 5)*



Booyesen (2015) warns that if teacher training institutions do not regulate, govern and design EE programmes this may adversely hinder the practice of entrepreneurial behaviour. As a key strategy to promoting EE within teacher education institutions in Zimbabwe, concerted efforts on creating environments conducive to entrepreneurial learning are very crucial as they shape and mould teachers' perception towards EE. Participant 2 provides three key variables to consider for the creation of a conducive environment in teacher training.

*A conducive environment consists of so many variables, resources, competent teaching staff, policy regulations and students who are willing to take up the challenge. In as much as I believe in our capabilities, I should say in entrepreneurship, we need resources, competent staff to teach the area and a change in policy regulation. (Participant 2)*

Resources are a key ingredient of EE success in secondary school, which Saiden (2017) suggests gives learners exposure, individual learning paths, equal opportunities to learn through experimentation, greater options, tolerance and scenarios to solve problems creatively.

*A conducive environment is present in our institution to foster entrepreneurship. What we just need is to continue to develop more teachers who will create entrepreneurs for Zimbabwe. (Participant 3)*

The entrepreneurial environment must be suitable to suit the criteria of teaching students EE and the knowledge required to be assumed. Dodd and Hynes (2012) and Motoyama & Danley (2012) assert that a conducive environment is seen as a milieu that has a positive influence on the development of learning initiatives in entrepreneurship. These authors encourage learning through the development of interaction and mutual aid networks between entrepreneurs, and through more general access to existing resources (mentoring, finance), which result in improved survival rates for new businesses.

*Our colleges need pragmatic and learning-based stations that will provide the much-needed experience for our student's teachers to deliver. Entrepreneurial education should be undertaken in an entrepreneurial way. Hence, the need to work towards the changes. (Participant 4)*

According to Levesque & Stephan (2020), the greater the amount of information to be learned, the more effective learning by other means becomes (participative learning), and the less hostile the environment.

The next section discusses the challenges that inhibit the successful implementation of entrepreneurship training for trainee teachers.

### ***7.3.7 Challenges That Exist in Teachers Colleges that Inhibit the Successful Implementation of Entrepreneurship Training for Trainee Teachers.***

The major theme that came out was that of challenges in Implementing EE in teacher training Colleges with participant 1 stating that,

*Embracing new methodologies of teaching entrepreneurship education is a challenge but a requirement. To learn entrepreneurship, one must practice and do entrepreneurship. (Participant 1)*

The views are supported by Singer, Amoros & Moska (2015) who suggest that if a country wants to develop an entrepreneurial culture, it needs to develop relevant programmes and policies proactively to support entrepreneurship education. This perspective is shared by the GEM 2016- 2017 Global report on entrepreneurship in a 75-country study of nascent entrepreneurs who found that EE influences the attitudes, aspirations and intentions of students to start new ventures. (Participant 1)

The development of entrepreneurship's key competencies is not simply a question of knowledge acquisition (Lackeus, 2015). Chell (2013) advocates that entrepreneurship education is about developing the ability to act in an entrepreneurial manner; hence, attitude and behaviours might be more important than knowledge on how to run a business.

*I believe that the greatest challenge we have is in accepting the fact that entrepreneurship is indeed a topic and an area that needs serious consideration in our curriculum and not only that what do we need to do about it. (Participant 3).*

Mwasalwiba (2010) advises that the skills sets required in entrepreneurship teaching and learning for students are difficult to teach through traditional teaching and learning practices in which the learner tends to be a more or less passive recipient, which is why it is critical to train teachers who will transform students into entrepreneurs in an entrepreneurial way.

*Entrepreneurship education is often conflated with business management education – as a result, negotiation, leadership, new product development, creative thinking, exposure to technology and innovation do not often receive the attention they deserve. (Participant 5)*

Deveci (2016) states that it is increasingly clear that nations need to begin to build capacity for 21st-century teaching.

*Lack of entrepreneurial knowledge and skills is a challenge in most trainee teachers in college and teaching staff in schools makes it difficult for entrepreneurship to be developed. (Participant 2)*

Hill et al. (2013) assert that many teachers are particularly lacking in information technology literacy, information literacy, media literacy, as well as digital collaboration skills. These limitations may affect their teaching performance in leading, guiding, modelling for and probing students in evidential explanations to help them acquire 21st-century entrepreneurial skills in a student-centred and inquiry-based learning mode.

*Developing a culture of entrepreneurship and turning the idea of entrepreneurship into an educational concept for all stakeholders to understand and consider the area as a fundamental one for economic development is key to a country's education system.*  
(Participant 4)

Booyesen (2015) states that the business environment is characterised by varied and continuous changes. In this environment, a readymade roadmap does not apply. Therefore, the process of growing any business in an unknown realm requires one to create a new roadmap to find your way each time. In such a world, according to Bygrave and Zacharakis, the entrepreneur must learn continuously. This is why traditional education is more focused on educational content, while entrepreneurship education focuses on creating a new "road map" for unknown territories. The body of literature authenticates the centrality of EE in modelling entrepreneurship-related (Linan & Fayolle, 2015; von Graevenitz, Harhoff, & Weber, 2010). It indeed is difficult to ignore these facts especially in the Zimbabwean education sector and in particular secondary school education.

The next section presents a systematic approach to data presentation and the analysis of research question 2.

#### **7.4 THE CONCEPT OF ENTREPRENEURSHIP CAN BE TAUGHT SUCCESSFULLY TO SECONDARY SCHOOL STUDENTS IN ZIMBABWE DRAWING FROM EXPERIENCES OF OTHER COUNTRIES**

The second research objective was meant to establish the success of entrepreneurship in secondary school students in the Zimbabwean education system. The variables used during the in-depth interviews were adapted from the Progression Model that outlines four different types of action-based pedagogy, as referred to earlier. To explore the variables, the study used seven distinct questions underlying the success of entrepreneurship in secondary school students in the education system (refer to Annexure 4). Data was obtained from one-on-one in-depth interviews with relevant Provincial Education Directors in the Ministry of Primary and Secondary Education (refer to Annexure 4).

The data presentation and analysis were divided into three stages: open, axial and selective coding. The next section presents a systematic approach to the data presentation and analysis. This data capturing and analysis process is an exact duplication of the analysis of the first secondary objective. Open coding and axial coding were completed to develop selective coding to ultimately reflect the detailed capturing and analysis process of objective two (the success of entrepreneurship in secondary school students in the education system).

Table 7.4 below outlines seven emerging themes, which were developed out of the open and axial coding.

**Table 7.4: Emerged Themes – the Current Status of Entrepreneurship Training in the Zimbabwean Secondary School Education System vis-a-vis the International Community.**

Question	Emerged Themes	Participant Interviewed
1. Entrepreneurship teaching	Importance of entrepreneurship	1, 2, 3, 4 & 5
2. Preparation of school leavers for self-employment	A lack of a distinctive approach	1, 2, 3, 4 & 5
3. Existence of a skills mismatch in education offered and industry expectation	Skills mismatch	1, 2, 3, 4 & 5
4. Familiarisation and preparation of students to work as employers or employees	Lack of familiarisation	1, 2, 3, 4 & 5
5. Policy on the teaching and learning of entrepreneurship.	Lack of policy	1, 2, 3, 4 & 5
6. Factors that support and inhibit the integration of entrepreneurship.	Factors that support	
	Society's attitude	1, 2, 3, 4 & 5
	Lack of knowledge	1, 2, 3, 4 & 5
	Factors that inhibit	
	Lack of an entrepreneurship framework	1, 2, 3, 4 & 5
	Lack of qualified teachers	1, 2, 3, 4 & 5
	Lack of resources	1, 2, 3, 4 & 5
7. Importance of entrepreneurship to overall economic development.	Job creation	1, 2, 3, 4 & 5

Table 7.4 indicates the seven major themes, which include the importance of entrepreneurship, the lack of a distinctive approach, skills mismatch, lack of familiarisation, lack of policy, two factors that support integration of entrepreneurship, which are society's attitude and the lack of knowledge, and three factors that inhibit the integration of entrepreneurship, which are the lack of an entrepreneurship framework, qualified staff, and resources. The seventh theme that emerged was job creation. These seven themes were derived from the interview guide's questions (refer to Annexure 5).

The next section reflects on the emerged themes, as well as secondary literature substantiation thereof.

#### **7.4.1 The Importance of Entrepreneurship in The Secondary School Education System**

According to Henry (2020), teaching entrepreneurship education at an early age to students and giving them the right exposure can generate interest and instil a culture of entrepreneurship in them. Bygrave and Zacharakis (2011) assert that a good curriculum will help this to become a reality if the entrepreneurship education curriculum is constructed correctly, creating entrepreneurs who can handle life and the world surrounding them. As one participant A opined:

*I think that entrepreneur can be taught and needs to be incorporated in our education system in secondary schools. (Participant A)*

Obschonka et al. (2011) reported that if adolescents were given entrepreneurship skills at an earlier stage, this would have a positive impact on them venturing into a business career later in life.

*Entrepreneurship should be taught to all students beginning from primary school right up to secondary school. (Participant B)*

Herrington et al. (2010) and Iakovleva, et al. (2013) are in support of participants A and B and assert that entrepreneurship, or at least some aspects of entrepreneurship, can be taught successfully in general education. They also established that entrepreneurship education has a positive influence on the decision to become an entrepreneur.

*There should be urgency in the manner and the way we adopt entrepreneurship within our schools as this might be the answer to unemployment. (Participant C)*

Boldureanu et al. (2020), agrees with participant C's view. Based on the outcome of an empirical study, concluded that educational programmes could positively influence entrepreneurial attributes among students to start-up businesses after formal education.

Kukulska-Hulme et al., (2020) study of 1001 entrepreneurs in high technology businesses also provide similar views and suggested that giving students earlier exposure in school to the technology field would give them an advantage. This could benefit them and could probably interest them in becoming entrepreneurs in the high-tech field.

*We should have begun in 1980 to teach all our students from primary education to university the idea of entrepreneurship. It is quite clear now that we need it for all our students. (Participant D)*

In light of this, it could be concluded that exposure to entrepreneurship education should begin at an early stage.

*I agree that entrepreneurship is an important area for consideration in our education system and should be taught. (Participant E)*

Boldureanu, Ionescu, Bercu, Bedrule- Grigoruta (2020), based on the outcome of an empirical study, concluded that educational programmes can positively influence entrepreneurial attributes. Their study provides evidence that entrepreneurship education, using successful

entrepreneurial role models, may influence a student's entrepreneurial intentions and their attitudes towards entrepreneurship positively.

The next section discusses the challenges that inhibit the successful implementation of entrepreneurship training for trainee teachers.

#### **7.4.2 A Lack of a Distinctive Approach in Preparation of School Leavers for Self-Employment**

According to Ndofirepi (2020), the government plays a crucial role in creating a sustainable in this same vein as the approach for both the private and public sector and in ensuring that every child within each school is prepared for a situation where wage employment may not exist.

*We are now focusing on skill acquisition rather than knowledge, which in a way would help students to work on their own after school. This needs a full integration approach in all schools to be effective. (Participant A)*

O'Higgins (2017) posits that a difficult transition into the world of work has long-lasting consequences not only on young people themselves but also on their families and communities. It also impacts more structurally on the evolution of labour markets and the future of work and society.

The 2012 McKinsey & Company survey (cited in ILO, 2019d) concurs with Alam and De Diego (2019) who stated that there was inadequate awareness of labour market demand, career pathways and prospects that lead youth to make uninformed study choices. Students in nine surveyed countries (Brazil, Germany, India, Mexico, Morocco, Saudi Arabia, Turkey, United Kingdom and the United States) said they were not well informed about the availability of jobs or the level of wages associated with their course of study.

*We can't predict the job market and economy in which our future students will be in. Each school, but not all, has tried to introduce students to tech - vocational subjects*



*including agriculture, as a way of life depending on the resources they have at their disposal. (Participant B)*

The Zimbabwean economy according to Coltart (2008); Ndofirei & Rambe (2017) is not creating enough formal employment opportunities and young people face a plethora of barriers, in terms of accessing skills and entrepreneurship training that could make them more employable, as well as able to pursue economic ventures and as such EE will pave the way for that to exist as stated by participant C.

*Entrepreneurial training in secondary school paves the way for pupils to pursue their future career plans and can match the needs of the future society. (Participant C)*

Alam and De Diego (2019) state that unemployment is lower in Sub-Saharan Africa among persons with no education and primary education, and higher among those with secondary education and above. This is not to negate the importance of education, as it is widely known that education is a significant factor in securing good employment over time; however, the more educated are inclined towards wage-paying jobs, which are harder to find. Participant D's views offer ways of how the Zimbabwean education system be transformed using an integration approach.

*We are now focusing on skill acquisition rather than knowledge, which in a way would help students to work on their own after school. This needs a full integration approach in all schools to be effective. (Participant D)*

According to Nani & Mpofu (2016), students should be able to identify and respond to opportunities using their ideas, knowledge, skills and confidence to create interventions that could address the challenges they encounter. In this context, preparing for the task through entrepreneurship should be guided by a clear strategy to determine the outcome.

*Testing and standards have taken over our education system rendering opportunities for students to create, innovate, collaborate and demonstrate proficiency or mastery in real-life ways useless. I see this as the main central focus in most schools. (Participant E)*

Axmann, Rhoades & Nordstrum (2015) advocate that the government should remove barriers to student preparedness in the world of work through supporting schools in placing more emphasis structurally on the centre of economic and social policies, and growth and development strategies.

#### **7.4.3 A Skills Mismatch in the Education Offered and Industry Expectations.**

Furthermore, another widely cited problem also alluded to in the Zimbabwe Country Report for the 2014 African Union Ministerial Conference on youth employment, is the mismatch between the skills being taught by the formal vocational training system and what is needed in the labour market, which participant A confirmed existed in Zimbabwe (United Nations Educational, Scientific and Cultural Organization, 2018)

*Yes, there is a serious mismatch. Education has always been academically oriented with much of the focus on further studies, and little on pupils' career aspirations. The recent educational reform tries to narrow this gap between the education system and the workplace and aims to help pupils understand a variety of issues concerning diversity, globalisation, information technology, business ethics and responsibility so that they can face the new challenges of today's business world. (Participant A)*

Blaschke and Hase (2016:109) state, "Secondary schooling... (in general)... does not appear to be producing the well-motivated and well-rounded young people that employers would like to recruit". They found in their research that employers would like to see in their employees both work skills and certain personal qualities, including communication skills, analytical reasoning, lateral thinking, practical orientation, interpersonal sensitivity, motivation, planning, decision-making, leadership and emotional stability (ibid.).

According to Kanter (2013), many reports have cited poor preparation of students in high school, before entering colleges, as one of the main causes of the mismatch between open jobs and skills which participant E is very much in support of.

*There is a skill gap between the skills that pupils will need as employees and the skills that they learn in school, and the integration of the former into the general curriculum is an important issue facing the policymakers of curriculum development. (Participant E)*

Erickson (2013:115) observed that this “problem starts with learning standards that are too often not aligned with university and career needs and the reality that many students are moving from grade to grade without meeting even those misaligned standards”. When the educational foundation is poor, whatever is built upon it will not hold.

*There is very little discussion on entrepreneurship in teacher training colleges, as opposed to the university programmes, where it is structured in university programmes. (Participant D)*

According to Oviawe et al. (2017), TVET plays an essential role in a government’s drive to facilitate skills development for the socio-economic and technological development of countries globally. Governments should ensure that TVET, as a type of education, should provide individuals with skills, knowledge and attitudes for effective employment in specific occupations; and that it is employed at each school level.

*Not surprisingly, apart from basic academic skills, the skills required in the workplace are not taught in the mainstream curriculum; thus, resulting in a mismatch between the workplace requirements and the school curricula. (Participant B)*

Cedefop (2015) states that policy learning can be an important mechanism in helping countries make the right choices when introducing and implementing new policy instruments targeting skills mismatches.

*The existing secondary curriculum does not provide any training for them to acquire the knowledge or skills to start a new business. Even for pupils taking the business*

*stream in secondary schools, the present curriculum does not include much of the related entrepreneurial training programme. (Participant C)*

Cedofop (2015) adds that the fundamental elements of policy learning will support many unemployed people in finding a job, and it will help students greatly in making the right choices. Therefore, entrepreneurship should be a key part of Zimbabwe's development strategy, providing a range of skills through vocational education that allows students to venture into the world of business after completing their studies.

The next section deals with familiarisation and the preparation of students to work effectively in small firms, either as employers or employees.

#### **7.4.4 Familiarisation and the Preparation of Students to Work as Employers or Employees**

*Not much has been done practically to fully prepare students for employment except what is suggested on paper, which is to have students attached to organisations or firms as interns. This process could take a while to implement in our Zimbabwean education system due to viability costs. (Participant B)*

Studies (Kozlinska, 2012; Rideout & Gray, 2013; Sweet, 2013) support the idea that work-based learning related to business operations for students can make their EE programmes of study more interesting and connect them more directly to the world of work. Participant B's view, however, indicated that the opportunity to be exposed for students in secondary schools in Zimbabwe is somehow not possible due to viability costs. This notion suggests that not much is being done from a practical perspective to fully prepare students for and involve them in employment conditions before they leave school.

Mwasalwiba (2010:123) views the environment as "affecting the extent to which students believe entrepreneurship is important and worthwhile; this perception affects the interest and intensity of involvement in any entrepreneurship programme offered at any level". The result of such a scenario is the failure to start and manage a business, which leads students

to believe that entrepreneurship is not a worthwhile career choice. Thus, this affects the business start-up decision.

Hence, Zimbabwean schools should offer their students opportunities to familiarise themselves with the world of entrepreneurship, learn to know themselves better, consider their own suitability for entrepreneurship, and forge contacts with their community. Participant A had other views on the familiarisation process of students.

*Students are guided on their career paths in secondary schools using the careers and guidance programmes. These are informative processes and initiatives by schools to help students to familiarise themselves with specific work-related areas and qualifications needed. (Participant A)*

The familiarisation process can improve students' job prospects by providing them with relevant work skills and by connecting them to employers who might offer them jobs after they graduate. This could be an important way of expanding opportunities and increasing social inclusion among groups who are disadvantaged in the labour market in Zimbabwe.

Alam and De Diego (2019) fully agree with familiarisation process of students in school and indicate that the stronger the student familiarisation process, the greater the chances for insightful career choices to be made by students in secondary schools.

*Companies in the past used to send out representatives to schools to educate students on issues related to what services they provided and to some extent they used to offer internship courses to school leavers as a way of enabling them to familiarise themselves with job-related activities. That practice has since stopped, I guess due to the high costs involved. (Participant C)*

Allahar & Brathwaite (2017) advance the notion that employer engagement is seen as an important lever for providing students with a continuum of experiential learning opportunities that connect academic, technical, and workplace content and skills. Failure to

provide students with some element of exposure to job and career familiarisation will create major job mismatch gaps (Ejiwale, 2014).

According to The Quebec Report (2012), entrepreneurship combined with a guidance-oriented approach to learning in schools can help foster personal development and a sense of identity among the youth.

*Preparing students for work in Zimbabwe was difficult, especially with the current economic situation in which schools find themselves. Most schools have to make do with what they have. ((Participant D)*

The emphasis on a familiarisation process of students in work-related activities while in school should enhance the general career-guidance process in students, which has significant entrepreneurial experience benefits.

Opportunities through familiarisation with work-related programmes for students in secondary school help students develop their ability to take action and achieve fulfilment through their projects (Blenker et al., 2011).

*The non-emphasis on extra-curricular activities in most of the schools due to financial constraints, even though they are included in the curricula framework, denies the youth of valuable employable skills while they are in school (Participant E)*

An overarching national skills strategy for Zimbabwe in partnership with stakeholders, such as industry, commerce, labour groups and the education sector, with integration policy instruments ranging from unemployment policies and education and training to national competitiveness strategies should be established as a way to expose more students to EE practices.

The next section presents ideas regarding the policy on the teaching and learning of entrepreneurship in the Zimbabwean secondary school education system.

#### **7.4.5 Policy on the Teaching and Learning of Entrepreneurship**

Blimpo & Pugatch (2019) posits that an entrepreneurship education policy is closely interlinked with overall entrepreneurship policy, as well as the economic and social development objectives of a nation.

*As a Ministry, our new curriculum recently launched in 2017, embedded entrepreneurship in the different subjects that are taught. We do not have a clear-cut policy on entrepreneurship teaching in Zimbabwe. (Participant A)*

Glaeser, Kerr & Kerr (2015) state that the most effective way to achieve the government aims that is to provide people with education and knowledge in the field of entrepreneurship. However, a study by Cheng, Chan & Mahmood (2009) with 300 respondents from two public universities, two private universities and a private high school in Malaysia showed that the level of understanding about “what entrepreneurship is” remained low among the respondents.

*I think that an entrepreneurship education policy should be closely interlinked with overall entrepreneurship policy, as well as economic and social development objectives. We do not currently have such a policy that is reflected in our country’s national economic and social development plans or strategies. (Participant A)*

The European Union (2016) advises that countries may choose to develop a specific policy primarily focused on entrepreneurial learning or consider developing a wider policy linked to broader education or economy-related themes in which entrepreneurial learning is included within all education levels beginning from primary education. Policy approaches to supporting entrepreneurial learning, as identified by the European Commission (2016), can be applied or adjusted, depending on the national context.

*The introduction of the teaching and learning of practical subjects is not an end in itself, but a means to an end. We need to introduce an entrepreneurship policy on the teaching and learning of entrepreneurship. (Participant D)*

Jones and Pimdee (2017) suggest that policymakers must chart a new path linking education tailor-made to business, or the other way round – a path that will secure economic competitiveness and provide young people with the jobs and future they deserve (Al-Awlaqi et al., 2018).

*As stakeholders, we have not recognised entrepreneurship as a key element and instead have embedded it in the curriculum, thereby withholding win-win networks of entrepreneurial relationships. (Participant B)*

Gibb (2012f) identifies specific policy/strategy, which focuses primarily on entrepreneurship learning, often developing a common vision across government and reflecting policy priorities for a range of ministries such as education, innovation and economic development, bringing together related actions from these policy areas.

*We have recognised how important entrepreneurship is to the overall development of our economy and are in the process of introducing a policy on its teaching and learning. (Participant E)*

In order to provide nations with a dynamic, competent new generation of workers, support through policy frameworks in entrepreneurship is therefore essential to help young people recognise the career opportunities available to them in an ever-changing and dynamic environment.

The next section provides insight into factors that support and that inhibit the integration of entrepreneurship in secondary school education systems.



#### **7.4.6 Factors that Support and Inhibit the Integration of Entrepreneurship.**

According to a United Nations International Children Emergency Fund report on Zimbabwe youth investment (2015), despite a protracted economic crisis, which has decimated its social services and infrastructure, Zimbabwe's education has retained its ranking among the best in Africa. The report put Zimbabwe's adult literacy rate at 86,4 percent; thus, it was ranked ninth in Africa (UNICEF, 2015).

*Our literacy rate of almost 95% is a good positive start towards the integration of entrepreneurship. However, we lack a standard framework for the development of entrepreneurship and have teachers who have not been trained in the area of entrepreneurial teaching. These are the major impediments to the integration of entrepreneurship. (Participant A)*

Akinyemi and Adejumo (2018) assert that developing entrepreneurs in education systems is not a one-man or an entity task. It is a process that needs support from both internal and external sources: from family members, institutions, and governments.

*We have done well with our level of education, which is a plus for entrepreneurship as it enables students to understand the outside world and equips them with the knowledge and skills to deal with day-to-day problems. On the other hand, we have challenges with qualified teachers, resources, and a clear lack of an entrepreneurship implementation structure. (Participant B)*

Leffler and Fark-Lundqvist (2014) state that entrepreneurship could enable students to understand and think creatively, take risks, and accept failure as part of the growth process.

The World Economic Forum (WEF) 2016 Global Information Technology Report ranked Zimbabwe fourth in Africa, in terms of the quality of its mathematics and science education which Participant C remarked and said that.

*Our education system is by far the best in Sub-Saharan Africa, which makes it more unique for the integration of entrepreneurship; however, we need to equip our schools*

*not only with materials for use in the integration but policy structures that determine the direction to take. (Participant C)*

The WEF 2016 Report also stated that Zimbabwe is only ranked behind Ivory Coast, Mauritius, and Tunisia in the quality of its mathematics and science education (WEF, 2016). The Zimbabwe National Statistics Agency's Labour Force Survey estimated that 97 percent of people over 15 were literate in 2011. This figure is based on the percentage of people in this age group who had completed Grade 3 (ZIMSTATS, 2011). This generally is a positive condition to foster EE within the Zimbabwean education system although there is a general lack of understanding on the benefits of being an entrepreneur in African states as well as in Zimbabwe (African Development Bank, 2019; Nani, 2016, Ndofirei, 2016), most African families believe that one cannot make a career out of being an entrepreneur (Ahmed & Nwankwo, 2013), parents rather create pressure on their children to academically succeed in school so as to get a well-paying career job. These can be overcome when the nation of Zimbabwe fully establishes EE as a programme within the primary and secondary education system where more and appreciation can be realised.

*The attitude of society and a general lack of understanding of entrepreneurship inhibits integration. The general populace needs to be educated on the value entrepreneurship brings to societies at large. (Participant D)*

According to The African Economic Outlook (2017), most Sub-Saharan African countries, including Zimbabwe, had adopted the British system of education, which produced a generation of students whose outlook was conservative and whose preference was for service (and preferably government service) as a provider of economic stability.

Sheriff, Muffatto and Cooper (2016) state that little is known about entrepreneurship and the entrepreneurial environment in many less-developed societies, especially Africa, which makes it difficult to understand the underlying factors that influence entrepreneurs in these resource-constrained countries.

*Our colleges need pragmatic and learning-based stations that will provide the much-needed experience for our students' teachers to deliver. Entrepreneurial education should be undertaken in an entrepreneurial way. Hence, the need to work towards the changes. (Participant E)*

Ahmed and Nwankwo (2013) opine that most Sub-Saharan countries have continued to backslide in the ideals espoused in their respective national development plans and forward-planning vision statements, aimed at propelling their economies from the margin to the mainstream global economy. Additionally, UNECA (2016) states that the diminished ability of Sub-Saharan Africa and, indeed, many Third World countries, to register real increases in employment following their privatisation and deregulation initiatives and the attendant massive corruption of the process implementation, means that the only way out for the employable masses in these countries is through private entrepreneurial initiatives. Ahmed and Nwankwo (2013) posit that harnessing enterprise solutions in the alleviation of poverty and the maintenance of sustainable development in Sub-Saharan Africa will be greatly enhanced with a particular focus on youth entrepreneurs, especially given the fact that they constitute the majority of the population in these countries. The overarching goal is to apply enterprise-led initiatives in the creation of a new crop of entrepreneurs, who are unburdened by institutionalised/structured governmental impediments, but empowered by new and improved support systems that not only recognise their peculiar handicaps but also provide functional remedial alternatives (World Bank, 2014).

The next section analyses the importance of entrepreneurship to economic development.

#### **7.4.7 The Importance of Entrepreneurship to Overall Economic Development.**

According to Naude (2017), entrepreneurs play an essential role in driving the structural transformation from a low-income, level of involvement absorbing surplus labour from the traditional sector, supplying original inputs to final goods-producing firms, enabling increased specialisation in manufacturing and increasing employment in the modern and traditional sectors.

*Every year thousands of graduates are passing out from various institutions of our country but unfortunately, they remain as literate unemployed individuals because they lack the required skill as per the industry standard and ultimately become a burden for the society instead of economically contributing to the society and nation. Hence, it is felt that there is an urgent need for a skill-based education system and development of awareness about entrepreneurship to create an entrepreneurial environment, which will help entrepreneurs to start their own ventures and to develop the economy. (Participant A)*

Fairlie (2011) indicates that higher local unemployment rates are found to increase the probability that individuals start businesses, assuring the positive relationship between unemployment and entrepreneurship. His findings suggest that business owners could provide an important alternative to unemployment for many individuals facing poor labour market conditions.

Plehn-Dujowich (2012) studied the dynamic relationship between entrepreneurship and unemployment. His results indicate that entrepreneurship and growth have a dynamic relationship in which one generates the other; unemployment spurs entrepreneurship, but entrepreneurship dampens unemployment and growth dampens unemployment, but unemployment spurs growth.

*Entrepreneurship education creates entrepreneurial attitudes among the unemployed literate youths that will help in meeting industry demands, which in turn will develop the economy. (Participant B)*

Al-Awlaqi et al. (2018) assert that high unemployment rates might feed into evidently large numbers of necessity entrepreneurs. The encouragement of such a trend could foster the new entry of youth, as a chance to escape from unemployment, but could also end up with a high exit rate.

*We need entrepreneurs because they create jobs. An entrepreneur creates jobs, setting the stage for a flourishing economy, unlike an individual who is a job seeker and a burden to the economy. (Participant C)*

Gibb (2012) believes that entrepreneurship is a discipline that can be taught and practised; however, policies should be designed to spread entrepreneurial thinking, attitudes and skills among youth in the entire educational system. Al-Awlaqi et al. (2018) assert that entrepreneurship can affect economic growth through knowledge spillovers, increased competition and increased diversity in terms of the products and services available. Further mechanisms include the creation of jobs, the introduction of innovations, and productivity enhancements.

*Entrepreneurs can change the way we live and work. If successful, their revolutions may improve our standard of living. In short, in addition to creating wealth from their entrepreneurial ventures, they also create jobs and the conditions for a flourishing society. (Participant D)*

Van Praag and Versloot (2017) suggest that entrepreneurs have a role to play in improving knowledge regarding the viability of new innovations, as well as in assisting in identifying consumer preferences by bringing new varieties of existing products and services to the market.

*Entrepreneurs regularly nurture entrepreneurial ventures by other like-minded individuals. They also invest in community projects and provide financial support to local charities. This enables further development beyond their own ventures. (Participant E)*

Battaglini and Mancini (2016) identified further mechanisms through which entrepreneurship could positively affect economic growth. Entrepreneurs can force efficiency upon existing businesses through contesting existing market positions; accelerate the pace of creative destruction, whereby new firms drive industrial change by replacing existing businesses; stimulate the rate of innovation in industries resulting in the opening of new markets and

provide a greater variety of new products and services. Policies should be made by governments, which target young people with the best chance of success, providing them with sufficient support to allow them to start businesses.

## **7.5 CHAPTER SUMMARY**

This chapter presented the qualitative research findings of the study. The results were presented as themes at the end of each objective. These themes emerged from different types of coding described in the methodology chapter. The current status of entrepreneurship training in the Zimbabwean secondary school education system vis-a-vis the international community is marked using the lack of professional development programmes, the new curriculum, met professional development needs, new teaching methods, inexistent entrepreneurship training programmes, entrepreneurship training was being incorporated, lack of entrepreneurship training, compulsory teaching of entrepreneurship education, caution against its implementation too soon, lack of a conducive environment, a conducive environment is present, entrepreneurship, and economic development. The success of entrepreneurship in secondary school students in the education system is marked using the importance of entrepreneurship, a lack of a distinctive approach, overemphasis on academic attainment, skills mismatch, lack of familiarisation, lack of policy, level of education, society's attitude, lack of understanding entrepreneurship, and job creation.

The next chapter presents the quantitative results on the entrepreneurial skills required for the secondary school curriculum in Zimbabwe to enable students to enter self-employment.

## CHAPTER EIGHT: QUANTITATIVE DATA PRESENTATION AND ANALYSIS

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### 8.1 INTRODUCTION

Chapter 7 presented the qualitative results of the study, which are aligned to research objectives 1 and 2. This chapter reflects on the quantitative results for research objective 3 regarding the entrepreneurial skills required for the secondary school curriculum to enable students to enter self-employment. The quantitative results were obtained from 252 participants, out of a population of 274 – 22 questionnaires were not answered. These participants were drawn from four designated provinces of CZI Platinum members, drawn from across 11 sectors of the economy.

This chapter consists of participants' characteristics, frequency tables, reliability tests, KMO and Bartlett's tests, exploratory factor analysis, and principal component analysis. Chi-square tests were done to examine the relationship between the duration of how long the business had been established, against the skills required from school leavers to enter self-employment. In addition, a regression model to model skills required from school leavers and Anova tests were done to test the significance of the model.

The next section presents participants' characteristics profiles, business information, frequency tables and variables of interest frequency tables, including the frequency tables for Section 8.2 to Section 8.4.

### 8.2 PARTICIPANTS' CHARACTERISTICS PROFILES

The descriptive variables for which data was collected included the respondents' gender, age range, qualification, work experience and years of experience. Descriptive statistics, such as frequency distribution tables, were used in analysing the data.

Table 8.1 presents comparative figures for each of the demographic variables.

**Table 8. 1: Descriptive Variables**

Variable	Details	Frequency (N)	Percentage (%)
AGE	18-24 years	17	6.7
	25-45 years	145	57.5
	>45	90	35.7
GENDER	Male	151	59.9
	Female	101	40.1
LEVEL OF EDUCATION	up to Certificate/Diploma	40	15.9
	Bachelor's degree	136	54.0
	Master's Degree and above	76	30.2
YEARS OF EXPERIENCE	<5years	48	19.0
	6-10years	87	34.5
	11-20years	73	29.0
	21+years	44	17.5

The majority of the respondents (57,5%) were aged between 25 and 44 years, compared to those above 45 years, at 35.9 %, and those between 18- and 24-year-olds at 6,7%. There was a fairly even split between respondents aged 25 to 45 years (57,5%) and those older than 45 years (35,9%), which indicates that the research is well represented in terms of all age groups, although there was a significant relationship between gender and age ( $\Phi=.162$ ,  $p=.036$ ). This is in line with the study by Dyllick and Muff (2016), where it was established that the ideal responsibility age was between the late 20s and the early 40s, which is when there is a trade-



off between confidence, usually characterised by youth, and wisdom based on years of experience.

The distribution of gender revealed that out of the research sample of 252, 59.9% were males, while 40.1% were females. Despite the 19.8% difference between the genders, the data obtained represents a rich and balanced opinion of both genders. Ninety percent of the CZI registered member companies who participated in the research preferred that the Human Resources Managers answer the questionnaire, and 10% were managers. Hence, the sample research results indicate that more men were engaged in this survey. The US Bureau of Labour Statistics in 2016 found that 72% of Human Resources Managers (HRMs) were women, while Payscale (2019) reported that 86% of HRM generalists were women. The slightly higher number of males as compared to females suggests that men are increasing their representation in the field of HR (Sands, 2019). That saying, after peaking at 79.3% in 2007, the number of female HRMs in the world has been in a slight decline, with men making up a more significant percentage in recent years. The results also indicate that the distribution allowed for generalisability of the findings and meaningful comparison between genders.

The results further indicated that more than half of the respondents had a bachelor's degree (54%), 15,8 % had up to a certificate or diploma as a qualification, and 30,2% had a masters' degree as a qualification. This indicates that the respondents were well educated and were able to give informed responses on research objective 3. The results confirm that the type of establishment indicated was positively associated with the level of education of the respondents ( $\Phi = .392, p = 010$ ). The next section discusses the business information profiles of the participants.

### **8.3 BUSINESS INFORMATION PROFILES**

The descriptive variables for which data was collected included the level of subscription with CZI, type of establishment, the sector they operate from, and age of business. Descriptive statistics, such as frequency distribution tables, were used in analysing the data. Table 8.2 presents comparative figures for each of the business profiles.

**Table 8. 2: Descriptive Variables**

Variable	Details	Frequency (N)	Percentage (%)
AGE	18-24 years	17	6.7
	25-45 years	145	57.5
	>45	90	35.7
GENDER	Male	151	59.9
	Female	101	40.1
LEVEL OF EDUCATION	up to Certificate/Diploma	40	15.9
	Bachelor's degree	136	54.0
	Master's Degree and above	76	30.2
YEARS OF EXPERIENCE	<5years	48	19.0
	6-10years	87	34.5
	11-20years	73	29.0
	21+years	44	17.5
AGE GROUP OF BUSINESS	up to 10 years	156	61.9
	11-20years	27	10.7
	21-30 years	12	4.8
	31-40years	16	6.3
	41+years	41	16.3

The results indicate that 29.8% of the respondents had an ordinary level of subscription, whilst 15.5% had no subscription at all. Membership within CZI is grouped according to the

level of subscription each member contributes and it varies from ordinary, which is the lowest, to platinum, which is the highest. Although it is interesting to note the varied nature of the percentages involved in the level subscriptions for each CZI member, the critical element for the study is on where they are mostly concentrated on as well as being paid member which effectively means that they are still in operation and are abiding by the values of CZI. The criteria make them valid respondents particularly for the study in question. Respondents who operated in the manufacturing sector were 30.2% and 16.3% in the service industry. The major type of establishment was Corporate, with 64.7%. Moreover, almost 62% of the businesses were aged between 0 and 10 years and 16.3% of the businesses had been in operation for more than 41 years, which indicated that the companies used for the survey were prime companies and had expertise in their different fields. Those companies operating between 19 and 21 years had a notable number of individuals, namely 36.1%, into full-time employment.

According to Kanokanga, Tukuta, Chikuta & Ndoda (2019), the respondents' socio-demographic characteristics (including education and work experience) are key success factors that aid researchers in acquiring information. Poorly educated respondents who cannot read and write well may skip open-ended questions to avoid writing out their answers (Zikmund et al., 2016). Similarly, Neneh and Van Zyl (2014) posit that the education, skills, experience and knowledge of the job have a huge influence on the success of the business. The results indicate that most of the respondents in the current study were experienced workers ( $N = 237 = 94\%$ ).

The research results also revealed that the respondents' work experience levels, analysed according to the number of years spent on the job, indicated that 94% had previous work experience and 6% did not have any prior work experience. Inference to these research results may suggest that the respondents were more detailed in terms of their responses.

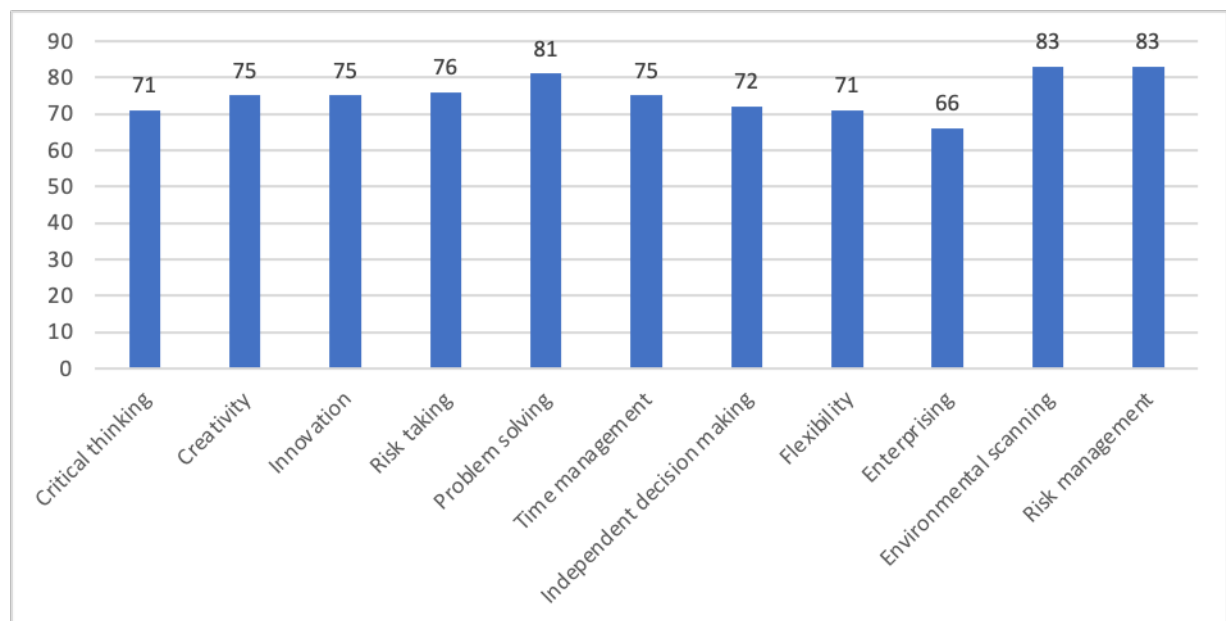
The next section analyses variable frequency tables based on participants' responses on entrepreneurship skills.

## 8.4 VIEWS ON ENTREPRENEURIAL SKILLS

This section analyses variable frequency tables based on the respondents' views on the entrepreneurship skills, proposed by Michelmores and Rowley (2013), Chell (2013) and OECD (2015), which suit, as suggested by Leon (2017), the mission of any educational function.

The entrepreneurship skills are critical thinking; creativity; innovation; risk-taking; problem-solving; time management; independent decision making; flexibility; enterprising; environmental scanning and risk management. Figure 8.1 provides an analysis of the respondents' views on each entrepreneurship skill.

**Figure 8.1: Entrepreneurship Skills**



Environmental scanning and risk management skills both scored the highest percentage, of 83%, out of the 11 skills presented. Problem-solving scored third highest, with 81%. Risk-taking, creativity, innovation, independent decision making, and critical thinking skills fell within the 76% to 71% category. Enterprising skills had the lowest percentage rating of 66%. Each skill and the responses from the respondents are analysed independently, beginning with critical thinking, in the next section.

### **8.4.1 Critical Thinking**

More than 70% of the respondents indicated that critical thinking is a very important skill required by school leavers to enter self-employment. As for an employee, a self-employed individual will need to have a certain level of proficiency in their occupational area (Allen et al., 2013). Critical thinking skills are stated to be a key pillar among the goals for a new, knowledge-based economy (Jones & Pimdee, 2017). These skills, however, are limited, according to a study evaluating logical thinking and analytical skills. For 6235 Thai students, the average final score was 36.5%, with 2.09% passing the examination (Rujivanarom, 2016).

According to Redecker et al. (2011), critical thinking skills include the ability to access, analyse, and synthesize information that can be learned, trained and mastered by students. This is in line with how Gotoh (2016) views critical thinking – as a set of skills and dispositions, which enable one to solve problems logically and to reflect autonomously utilising cognitive regulation on one's problem-solving processes. Thus, it is a set of skills and tendencies that allow a person to solve problems logically (Kukulska-Hulme, Bossu, Coughlan, Ferguson, Fitzgerald, Gaved, Herodotou, Rienties, Sargent, Scanlon, Tang, Wang, Whitelock & Zhang, 2020). Rujivanarom (2016) opines that critical thinking skills can also be interpreted as a person's thinking ability in making decisions. With critical thinking skills, a person can think rationally and logically in receiving information and be systematic in solving problems. The next section discusses the responses to creativity.

### **8.4.2 Creativity**

Seventy-five percent of the respondents indicated that creativity is a very important skill required from school leavers to enter self-employment. The American Society for Training and Development ranked leadership, critical thinking and creativity among the most sought-after skills by employees, with up to 20% of organisations indicating a deficiency in these skills among young graduates (Boyles, 2012). According to Arcs et al. (2010:882), “Entrepreneurship is a form of creativity and can be labelled as business or entrepreneurial creativity because new businesses are original”.

Besides, research has shown that creativity fosters better problem-finding and problem-solving skills development and creative students are better able to handle stress and overcome difficult situations. Similar studies highlighted the positive influence of creativity in schools, with students developing high self-efficacy and confidence about their future and their ability to succeed (Bronson & Merryman, 2010). The next section analyses the participants' responses to innovation.

#### **8.4.3 Innovation**

A total of 190 of the respondents (75.4%) agreed that innovation is a very important skill required from school leavers to enter self-employment. According to the United Nations Economic Commission for Europe (2012), innovation plays a central role in driving productivity growth and fostering competitiveness in a global world where knowledge and innovation are critical factors for the advanced economies. Braunerhjelm (2010) asserts that innovation and creativity skills have become key drivers of growth and value creation in the Fourth Industrial Revolution.

Al-Awlaqi et al. (2018) emphasise that in an ever-changing economic context, countries that can quickly generate and adopt new ideas, processes and products will have a competitive advantage, yet an economy's ability to form effective innovation ecosystems largely depends on its human capital. Therefore, entrepreneurship education should enable students to identify opportunities, handle impediments on the entrepreneurial journey, implement the right actions to achieve desired results, and focus on their defined goals (Battaglini & Mancini, 2016). The next section analyses the responses to risk-taking.

#### **8.4.4 Risk-Taking**

The majority of the respondents (75.8%) indicated that risk-taking is a very important skill required from school leavers to enter self-employment. The assessment of risk by the self-employed is a significant theme in the literature (Edirisinghe, 2017), and risk-taking is one of the key common skills that all entrepreneurs should have. Baranoff et al. (2012) assert that

business leaders accept risk as a cost of opportunity and innovation; they know that it cannot happen if they do not accept the risk and that their undertaking might fail. Because most people tend to avoid risks, those who are brave enough to take risks already have a competitive advantage (Deveci, 2016). Furthermore, Tajpour et al. (2018) posit that the concept of a first-mover advantage, when most individuals stay away from risk, means less competition for risk-takers. This means that if you find a worthwhile opportunity, and no one else takes it, you are the only business reaping the benefits and communicating with customers. You can lessen the level of risk if you make all possible calculations and evaluate which options are best before proceeding to the next step (Baranoff et al., 2012).

In a related study on why risk-taking is critical in entrepreneurship and business formation, Acs and Audretsch (2014) suggest that the entrepreneur has a role in the economy, only if the environment is uncertain; thus, separating the concept of risk (measurable uncertainty). Uncertainty refers to the unknowable probability that an event will occur and is not associated with a statistical probability. In other words, developing an argument originally presented by Knight (1921), Acs and Audretsch (2014) provide a theoretical argument supporting the idea that entrepreneurial behaviour is not only inherently risky but deals primarily with situations in which the statistical probability is unknown. The next entrepreneurship skill that is discussed is problem solving.

#### **8.4.5 Problem Solving**

Eighty-one percent of the respondents indicated that problem-solving is a very important skill required from school leavers to enter self-employment. Schley and van Woerkom (2014) posit that identifying problems is a necessary part of the origin of the entrepreneurial process; while managing problems is an entirely different aspect once a venture is off the ground and running. Jonassen (2012) argues that an entrepreneur does not have the luxury of avoiding problems and is often responsible for all problem-solving in a start-up, or any other form of business.

The complex analysis of a problem or issue to solve the problem or make a decision is also referred to as critical thinking (Frederick & Kuratko, 2010). The entrepreneur analyses and

peels away the layers of a problem to find the core of an issue facing the business. The entrepreneur focuses on the heart of the problem and responds reasonably and openly to suggestions for solving it. Henry (2020) concludes that critical thinking is not only important for developing entrepreneurial ideas: it is a sought-after asset in education and employment. As far as entrepreneurship education within the formal education system is concerned, there is consensus that it should incorporate not only technical business skills but also a wider approach to encouraging an entrepreneurship culture and associated life skills (including innovative mindsets, independence and problem solving) (Al-Awlaqi et al., 2018). The next section analyses the responses to time management.

#### **8.4.6 Time Management**

Three-quarters of the respondents pointed out that time management is a very important skill required from school leavers to enter self-employment. Zachary et al. (2014) emphasise that time and time-sensitive processes play a key role in entrepreneurship, from the timing of start-up decisions, growth activities and market entry, to the management of an entrepreneur's time, considered his/her "most valuable and scarcest resource of all". Relatively unexplored in the broader research on time perspectives and entrepreneurship is the role of the past and the past time perspective, which can help to build the legitimacy of the entrepreneur and be a source of resilience (Baranoff et al., 2012).

Time is the entrepreneur's most precious limited resource and it is a unique quantity, as it cannot be stored, hired, rented, or bought (Gielnik et al., 2014). The entrepreneur is an innovator or developer who recognises and seizes opportunities, converts those opportunities into workable or marketable ideas, adds value through time, efforts, money or skills, assumes the risk of the competitive marketplace to implement these ideas and raises the rewards from these efforts. Hence, the management of time by entrepreneurs is so crucial to the success of ventures (Zarbakhsh et al., 2015). Through effective time management, according to Ologunowa et al. (2019), an entrepreneur could eliminate the pressure that might come from the feeling of not having enough time. The entrepreneur will feel in control and will be able to make rational decisions without rushing through the



process; this will invariably lead to a good or rational decision. The next entrepreneurship skill that is discussed is independent decision-making.

#### **8.4.7 Independent Decision Making**

Seventy-two percent of the respondents indicated that independent decision-making was a very important skill required from school leavers. Entrepreneurial decision-making is important because the strategic decisions firm leaders make have a major impact on the firm's future direction and performance (Shepherd & Patzelt, 2017). The decision-maker evaluates the possibilities of future success and the risks involved. The process of evaluation is based on the information available, like the knowledge about the decision, the probability of each option, and the results of the options (Behrens & Patzelt, 2017).

Another critical factor, according to Behrens and Patzelt (2017), is that decision making is a non-linear, recursive process, which means that decision-makers move forward and backward between the criteria that make up the decision and the available options, based on the criteria. The next section discusses the respondents' views on flexibility as an entrepreneurship skill.

#### **8.4.8 Flexibility**

More than 71% of the respondents indicated that flexibility is a very important skill required from school leavers. Being flexible as an entrepreneur, states Brewer (2013), can provide an entrepreneur with an important competitive advantage as the entire process will help in exploiting opportunities as and when they arise. Brewer (2013) further explains that if a gap is spotted in the market, and the entrepreneur reacts quickly by developing new products or services, or by adapting current offerings, he/she may be able to outmanoeuvre slower-moving rivals. Existing research (Battaglini & Mancini, 2016; Changwong, et al., 2019; Meager, et al., 2011) suggests that self-employment can enhance skills utilisation, with some self-employed individuals able to have more control over and make better use of their human capital, outside the constraints of an organisation. The next section analyses the responses to enterprising.

#### **8.4.9 *Enterprising***

Sixty-six percent of the respondents indicated that enterprising is a very important skill required from school leavers to enter self-employment. Essentially, within an enterprising economy, increasing demand is made for new and exciting products and services of novelty, quality, and perceived consumer or societal value. As Drucker (2010:17) notes, “In such a period of rapid change the best – perhaps the only – way a business can hope to prosper, if not to survive, is to innovate,” and remain enterprising.

Enterprise skills are a necessary and fundamental requirement of an enterprise economy (Hessels et al., 2011). To this end, skills necessary for entrepreneurial actions and behaviours must be developed and encouraged so that entrepreneurs maintain competitiveness within the global enterprise culture. Attitudes, values and behaviours are widely reported as important for those considering self-employment (Hessels et al., 2011). Thus, Gibb (2012f) argues that running a small business requires individuals to take a different approach from those seen in large organisations. For example, equating entrepreneurship with being business-like can encourage approaches, which foster a large organisation culture.

Section 8.4.10 analyses the participants’ responses to environmental scanning.

#### **8.4.10 *Environmental Scanning***

Eighty-three percent of the respondents suggested that environment scanning for opportunities is a very important skill required from school leavers to enter self-employment. De Lorenzi Cancellier, Junior & Rossetto (2014) suggest that environmental scanning has been regarded as the first stage in the process of associating the organisation’s strategy with the environment. Understanding that environmental scanning enables the company to learn about opportunities of which it can take advantage, and about the events or problems that may threaten its performance, allows for defining strategies aligned with environmental conditions. Neck (2016) states that scanning information in small and medium-sized companies is essential in achieving maximum performance.

Naji (2019) asserts that the competitiveness of an organisation depends on its business strategy and, to develop an efficient strategy, it is necessary to understand what makes the organisation competitive. Therefore, the organisation needs to know the environment in which it operates before it develops its competitive strategy. Brewer (2013) posits that the riskier the environment, the higher the number of competitors and the fiercer the competition will be. The environments, to the extent that they cause problems and create opportunities for organisations, increase the level of uncertainty and lead to a process of acquiring information, as entrepreneurs need to detect and interpret challenging areas, and identify opportunities. The next section analyses the responses to risk management.

#### ***8.4.11 Risk Management***

Eighty-three percent of the respondents suggested that risk-management is a very important skill required from school leavers to enter self-employment. The ability to manage risk will help entrepreneurs act more confidently on future business decisions. Their knowledge of the risks they are facing will give them various options on how to deal with potential problems. Risk management is important for an entrepreneur because, without it, a firm cannot define its objectives for the future. If a company defines objectives without considering the risks, chances are that they will lose direction once any of these risks hit home.

The evidence shows that, compared with employees, the self-employed need the ability to combine and deploy a wider range of competencies. Gibb (2012f) argues that entrepreneurial behaviour is underpinned by a variety of behaviours, enabling an individual to cope with and take advantage of uncertainty and complexity; this interacts with how things are understood and learned.

The next section analyses the variable descriptive statistics on respondents' views on how each of the entrepreneurship skills was rated in order of importance.

## 8.5 Importance of Entrepreneurial Skills

To determine the entrepreneur skills required from school leavers to be able to enter self-employment a set of questions were asked, and the respondents were asked to rate how important each skill was. The responses were rated as 5 for very important skills, 4 for important skills, and 3 for not important.

The mean scores of the entrepreneurship skills were calculated and all the skills had a mean of approximately 5, which indicated that all the skills were very important and were required of school leavers to enter self-employment. The mode (5) and mean (5) were also calculated and indicated that all the entrepreneurship skills were very important. Individual frequency tables for each skill also showed that the majority of the respondents indicated that all the entrepreneurship skills were very important. The breakdown for each skill is provided in the following table.

**Table8. 3: Descriptive Statistics**

Skill	Critical thinking	Creativity	Innovation	Risk-taking	Risk management	Problem-solving	Time management	Independent decision-making	Flexibility	Enterprising	Environment scanning for opportunities
Valid	252	252	252	252	252	252	252	252	252	252	252
Mean	4.66	4.73	4.71	4.70	4.73	4.79	4.72	4.65	4.64	4.60	4.78
Median	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Mode	5	5	5	5	5	5	5	5	5	5	5

**Key: 5= Very important 4= Important 3= Not important**

Table 8.3 indicates that all the skills mentioned above are very important, as shown by the mean response, which approximates to 5. The mode and median were also 5, which further supports that the above skills are all very important entrepreneurial skills, which are required for school leavers to be able to enter self-employment. Although the frequencies and descriptive statistics brought out important aspects regarding the understanding of

entrepreneurship skills that are important to secondary school leavers, the study carried out further analysis by conducting the reliability test, the Chi-square test, factor analysis and linear regression modelling.

## 8.6 Reliability Test

This reliability test was used to test the appropriateness of the tools used, the accuracy of the analysis of results, and the generalisability of the findings (Saunders et al., 2016). Reliability refers to the replication and consistency (Saunders et al., 2016) or stability of the measure (Ghauri & Gronhaug, 2010). This enables researchers to replicate the same research design and achieve the same findings (Saunders et al., 2016). It also measured the appropriateness of the tools used, the accuracy of the analysis of results, and the generalisability of the findings (Saunders et al., 2016; Piaw, 2013). Table 8.3 illustrates the results obtained from conducting a reliability test.

**Table 8.0.4: Reliability Statistics**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.813	.817	11

According to Piaw (2013:147), “In determining the reliability of an instrument based on the Cronbach’s Alpha reliability method, the alpha value of 0.65 to 0.95 is satisfactory because a low alpha coefficient ( $\alpha \leq .65$ ) shows that the ability of the items in the research instrument to measure the concept (or the variable) is low”. The Alpha Cronbach's was 0.813, which is greater than 0.6, and indicates that the instrument used to collect the data was reliable. It follows that the constructed instrument was internally consistent and reliable (Zikmund et al., 2013; Field 2016). Table 8.3 shows acceptable consistency; hence, good reliability as the Cronbach’s Alpha is greater than the recommended benchmark of 0.65 (Bryman & Bell, 2015).

Section 8.7 analyses the result from a Chi-Square test for independence to examine the relationship between how long the business had been established against the skills required for school leavers to enter self-employment.

## **8.7 Chi-Square Test**

A Chi-Square test establishes how likely it is that two variables are associated or invariably independent (Leavy, 2017). It is based on a comparison of the observed values in the table with what might be expected if the two distributions were entirely independent (Saunders, et al., 2009). A Chi-Square test for independence was performed to examine the relationship between how long the business had been in operation against the skills required from school leavers to enter self-employment. The relationship between the variables was significant,  $\chi^2$  (8, N=252) =11.6 p=0.021.

The greater the age of a business, the more the individual knew the required entrepreneurship skills for the business to survive that long. Barringer and Ireland (2012) are in support of this view when they state that every successful entrepreneur has learned to develop their perseverance, creativity, problem-solving, risk-taking and tenacity muscles. The life of any business is never smooth sailing, and it takes guts to sustain a business and grow it under difficult macro and microeconomic conditions (Cooney, 2012).

The next section analyses a Chi-Square test to examine the relationship between gender and the age of a business.

### 8.7.1 A Chi-Square Test for Independence Was Performed to Examine the Relationship Between Gender and Age of Business

A Chi-Square test for independence was performed to examine the relationship between gender and age of business. The relationship between the variables was not significant,  $X^2(4, N=252) = 8.657$   $p=0.70$ . Table 8.5 below illustrates the results.

**Table 8. 5: Chi-Square Tests (Gender \* Age of business)**

Chi-Square Tests (Gender * Age of business)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.657 <sup>a</sup>	4	.070
Likelihood Ratio	9.117	4	.058
Linear-by-Linear Association	7.708	1	.005

The results of the chi-square test conducted to examine the relationship between gender and age of business contradict studies conducted by OECD (2015) in 79 countries with high total entrepreneurial activity rates, which showed that there was an association between female involvement in business and entrepreneurial activity rates (Sarfaraz, Faghih & Majd, 2014). According to the GEM Women's Report on women entrepreneurial activity, Sub-Saharan Africa had the highest rate of female entrepreneurship, with a rate of 27% (GEM, 2012).

Additionally, research by Baer and Kaufman (2008), as well as by Sanz de Acedo Baquedano and Sanz de Acedo Lizarraga (2012), indicated that creativity levels are related to gender. Ahl (2006) and Gupta, Turban, Wasti & Sikdar (2005) highlight a stereotype that implies that to be an entrepreneur is a masculine characteristic; this stereotype could condition the entrepreneurial intentions of men and women. Another report by Cheung & Lau, 2010 indicated that there was no gender difference related to entrepreneurship, but that environmental and cultural effects can explain it whenever those differences exist. The results provide a basis for the establishment of an entrepreneurship framework within the

secondary school system since most of the schools are co-educational and cater to both boys and girls.

### 8.7.2 A Chi-Square test for independence to examine the relationship between the level of education and years of experience

A Chi-Square test for independence was performed to examine the relationship between the level of education and years of experience. The relationship between the variables was significant,  $X^2 (6, N=252) = 27.954$   $p=0.00$ . Table 8.6 illustrates the results.

**Table 8.6: Chi-Square Tests (Level of Education \* Years of experience)**

Chi-Square Tests (Level of Education * Years of experience)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.954 <sup>a</sup>	6	.000
Likelihood Ratio	25.857	6	.000
Linear-by-Linear Association	16.883	1	.000
N of Valid Cases	252		
a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 6.98.			

The relevant literature suggests important links between education, venture creation and entrepreneurial performance, as well as between entrepreneurial education and entrepreneurial activity (Changwong et al., 2019). Similarly, Sánchez (2010) asserts that education is important for stimulating entrepreneurship. Firstly, education provides individuals with a sense of autonomy, independence and self-confidence. Secondly, education makes people aware of alternative career choices. Thirdly, education broadens the horizons of individuals, thereby making people better equipped to perceive opportunities, and finally, education provides knowledge that can be used by individuals to develop new entrepreneurial opportunities (Raposo & Paco, 2011). In a study by the European Commission in 2015, almost twice as many people who regarded self-employment as a feasible prospect in the next five years had followed an entrepreneurship course (34% compared to 18%).



However, less than half of EU citizens felt that their school education had helped them to better understand the role of entrepreneurs in society (47%) or gave them the skills to enable them to run a business (41%). Only 28% of the Eurobarometer respondents agreed that their school education made them interested in becoming an entrepreneur, although this figure ranged from 65% in Portugal to 17% in Germany and the United Kingdom (European Commission, 2015). According to a UNICEF report (2016), despite a protracted economic crisis, which has decimated its social services and infrastructure, Zimbabwe's education has retained its ranking among the best in Africa. The report put Zimbabwe's adult literacy rate at 86,4 %; thus, it was ranked ninth in Africa (United Nations International Children's Fund, 2016). The chi-square test results are indicative of Zimbabwe's potential in developing entrepreneurial students within the secondary school education sector if given the chance to. The drive by the country's leadership in their vision 2030 strategy to establish a middle economy by the year 2030 resonates very well with the development of entrepreneurship within the secondary school education system as more youths will establish themselves as business people through the knowledge and skills they will have gained from being educated.

### **8.7.3 A Chi-Square test for independence to examine the relationship between work experience and the type of establishment.**

A Chi-Square test for independence was performed to examine the relationship between work experience and the type of establishment. The relationship between the variables was significant,  $\chi^2 (7, N=252) = 33.778$   $p = 0.00$ . Table 8.7 illustrates the results.

**Table 8.7: Chi-Square Test (Work Experience \* Type of Establishment)**

<b>Chi-Square Tests (Work experience * Type of establishment)</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.778 <sup>a</sup>	7	.000
Likelihood Ratio	24.736	7	.001
Linear-by-Linear Association	1.148	1	.284
N of Valid Cases	252		
a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 7.23.			

Gabrielsson and Politis (2012) maintain that work experience exposes individuals to personal and often unique insights into customer problems, viable markets, product availability, problem-solving and competitive resources, which ultimately influence their ability to identify shortcomings or inefficiencies in their current ways of doing things. A study was done by Dimov (2010), which explored the opulence results between prior work experience (PWE) and attitude towards self-employment found that PWE had positive effects on entrepreneurship intention and eventually self-employment.

Furthermore, these insights may trigger ideas for new or better ways of serving customers and markets, which ideally connect to self-employment ideas (Gabrielsson & Politis, 2012). Shepherd (2015) suggests that the ability to successfully engage in entrepreneurial activities is largely a function of the education, training and practical learning that people experience throughout their careers and professional lives. The results from the chi-square test conducted to examine the relationship between work experience and type of establishment show that clearly that if students in a secondary school in Zimbabwe are exposed to entrepreneurship, they will understand the concepts involved and over time will become entrepreneurs. Experience and training will become critical factors in determining the successful development of entrepreneurship within the secondary school education system in Zimbabwe. This view is supported by Davey et al. (2016) who in their research took a sample of 170 subjects comprising two groups entrepreneurs and prospective entrepreneurs. The results showed almost identical attitudes among the members of the groups towards entrepreneurial education and training as being outstanding factors for success and adding significant essential value to any entrepreneurship venture.

#### **8.7.4 A Chi-Square test for independence, to examine the relationship between the sector companies operate from and the type of establishment.**

Table 8.8 presents the results of the Chi-Square test for independence, which was performed to examine the relationship between the sector companies operate from and the type of establishment. The relationship between the variables was significant,  $X^2 (77, N=252) = 143.770$   $p=0.00$ . Table 8.8 illustrates the results.

**Table 8. 6: Chi-Square Test (Sector they Operate From \* Type of Establishment)**

<b>Chi-Square Test Sector they operate from * Type of establishment</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	143.770 <sup>a</sup>	77	.000
Likelihood Ratio	123.738	77	.001
Linear-by-Linear Association	2.041	1	.153
N of Valid Cases	252	77	
a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 6.73			

The results are reflective of the fact that if entrepreneurship is well established and taught within secondary schools in Zimbabwe, the success of small businesses will be ensured. This idea is augmented by Leon (2017) who stresses that the most important small business enterprise success items are education and training of entrepreneurs, and social competence, which includes honesty and good social skills. Secondly, the results refute a notion that only businesses in towns can thrive which plays into most minds of young school leavers who flock to towns seeking employment opportunities in Zimbabwe. Irrespective of the province and the business environments, the results show that entrepreneurs can still thrive and make it anywhere in Zimbabwe. This points to the positive impact of entrepreneurial education and training, including the content and nature of entrepreneurship education, which is based on interactions and reflections, and drawing on action learning principles, which motivate entrepreneurs to be innovative and creative in their ventures (Leon, 2017).

#### **8.7.5 A Chi-Square test for independence to examine the relationship between the level of subscription with CZI and the type of establishment.**

Table 8.9 illustrates the results obtained for a Chi-Square test for independence performed to examine the relationship between the level of subscription with CZI and the type of establishment. The relationship between the variables was significant,  $X^2$  (35, N=252) = 44.823 p=0.24. Table 8.9 illustrates the results.

**Table 8. 7: Chi-Square Test (Level of Subscription with CZI \* Type of Establishment)**

<b>Chi-Square Tests (Level of subscription with CZI * Type of establishment)</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.823 <sup>a</sup>	35	.024
Likelihood Ratio	53.535	35	.023
Linear-by-Linear Association	.061	1	.806
N of Valid Cases	252		
a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 8.45			

The results of a chi-square test to examine the level of subscription and type of establishment are synonymous with study findings of Hessels et al. (2011), which demonstrated that entrepreneurial education and training programmes appeared to create openness, confidence and trust among the participants. Companies that have stayed longer in CZI started with lower subscription status and with time grew their level of the establishment to get themselves to a higher degree of status within CZI. Further, Hessels et al. (2011) assert that it is a social trust that facilitates coordination and cooperation between individuals and firms outside the educational setting, which is essential for any venture's success. For the students who are going to be involved in entrepreneurship education, the results demonstrate the subject (entrepreneurship) can be trusted to bring up long term success through engagement, hence educators must move away from the traditional settings of teaching into a more action-oriented system of teaching to establish this success.

#### **8.7.6 A Chi-Square test for independence to examine the relationship between the level of subscription with CZI and the type of establishment.**

Table 8.10 illustrates the results obtained for a Chi-Square test for independence performed to examine the relationship between the minimum competence level of self-employed individuals and the type of establishment. The relationship between the variables was significant,  $X^2(42, N=252) = 87.784$   $p=0.00$ . Table 8.10 illustrates the results.

**Table 8. 8: Chi-Square Test (Minimum competence level of self-employed individuals \* Type of establishment)**

<b>Chi-Square Test (Minimum competence level of self-employed individuals * Type of establishment)</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	87.784 <sup>a</sup>	42	.000
Likelihood Ratio	82.552	42	.000
Linear-by-Linear Association	.015	1	.903
N of Valid Cases	252		
a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 12.3			

The literature confirms that educational achievement affects self-employment entry and success (Meager et al., 2011). Parker (2014) found in his study on the relationship between education and entrepreneurship propensities that there are both positive and negative relationships. Furthermore, these relationships interact with occupation and sectoral norms. On the positive side, highly educated people, or people with specific qualifications may choose occupations in which self-employment is more common (some professional or knowledge-based occupations, for example); equally higher levels of education may lead to people being better informed about potential business opportunities. On the negative side, research suggests that, because the specific skills needed for self-employment are rarely embodied in formal education, one may be less likely to choose to acquire (or to see the point in acquiring) qualifications, which ostensibly are of more use in salaried employment. The results show no conclusive evidence that provides a basis in terms of qualification level for one to be an entrepreneur. With so many youths in Zimbabwe failing to acquire the requisite 5 ordinary level passes to proceed to advanced level and eventually university, introducing entrepreneurship within the secondary school system will enable these students to have a chance at working for themselves and earning an income.

The study carried out further analysis to increase the consistency, robustness and accuracy of the results by carrying out linear regression modelling.

## 8.8 FACTOR ANALYSIS

An exploratory factor analysis involved the identification of important factors to explain entrepreneurship skills required to enter self-employment. Factor analysis was established to achieve the following:

- a) Keiser-Meyer-Olkin (KMO) test for sampling adequacy.
- b) Bartlett's test for sphericity.
- c) Factor extraction.
- d) To do Principal Component analysis.
- e) Indicate the Chi-Square test of association between demographics and identified factors.

The research used factor analysis to obtain clear insights into the variables that represent the entrepreneurship skills required to enter self-employment. According to Rietveld and Van Hout (1993:254), exploratory factor analysis reduces "the dimensionality of the original space and gives an interpretation to the new space, spanned by a reduced number of new dimensions which are supposed to underlie the old ones". As Creswell (2015:134) puts it, "Exploratory factor analysis explains the variance in the observed variables in terms of underlying latent factors".

To carry out factor analysis, the research calculated sample adequacy using the Keiser-Meyer-Olkin (KMO) test for sampling adequacy and Bartlett's test for sphericity. The KMO measure of sampling adequacy is an index used to examine the appropriateness of factor analysis (Goud & Puranik, 2016). This index ranges from 0 to 1. High values (from 0.5 to 1.0) indicate that factor analysis is appropriate (Malhotra & Dash, 2007). The value, which is equal to 0.80 or above, is considered meritorious (Hair et al., 2010). A statistically significant Bartlett's test of sphericity indicates that sufficient correlations exist among the variables to proceed with factor analysis (Hair et al., 2010).

### **8.8.1 Sample Adequacy and Sphericity Testing**

Sample adequacy was used to assess the correlation between variables (Pallant, 2011). This research used the KMO test to measure the sampling adequacy, which ranges between 0 and 1 (Hair et al., 2015). Bartlett's test of sphericity was utilised to check the redundancy between variables and determine how it can be summarised with some factors. Table 8.11 shows Bartlett's test of sphericity and the KMO test for sample adequacy.

**Table 8. 9: KMO and Bartlett's Test**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.851
Bartlett's Test of Sphericity	Approx. Chi-Square	643.516
	df	55
	Sig.	.000

From Table 8.9, the KMO Measure of Sampling Adequacy is 0.851, which is the meritorious result of the study, which is adequate for factor analysis to be conducted, as recommended by Bryman and Bell (2016d). The Bartlett's test is significant at 5% (p-value <0.00), which indicates the correlation matrix is factorable (Yao, Zheng & Bai, 2015). The extracted commonalities are dealt with in the next section on Principal Component Analysis.

### **8.8.2 Principal Component Analysis**

A Principal Component Analysis is appropriate when you have variables and wish to develop a smaller number of artificial variables (called principal components) that will account for most of the variables observed. Then, the principal component may be used as a predictor or criterion variable in subsequent analyses (Creswell & Plano Clark, 2014). The skills were loaded into two main factors, which were then named Skill set 1 and Skill set 2. The average score of the two individual skill sets was calculated and was used as the independent variable in the regression model. The years of how long the business was in operation were used as the dependent variable.

Then, a linear regression model was fitted on the data and the model explained 63.04% of the variability in data. Saunders et al. (2009) describe linear regression as a basic and commonly used type of predictive analysis. The overall idea of regression is to examine two things: (1) Does a set of predictor variables do a good job in predicting an outcome (dependent) variable? (2) Which variables, in particular, are significant predictors of the outcome variable, and in what way do they – indicated by the magnitude and sign of the beta estimates – impact the outcome variable? Saunders et al. (2019) state that these regression estimates are used to explain the relationship between one dependent variable and one or more independent variables. The yielding results are summarised in Table 8.12.

**Table 8. 10: Rotated Component Matrix**

Entrepreneurship Skills	Component	
	Skill set 1	Skill set 2
Innovation	.762	
Creativity	.719	
Risk-taking	.702	
Problem-solving	.678	
Critical thinking	.570	
Risk management	.465	
Flexibility		.777
Enterprising		.685
Time management		.527
Independent decision-making		.526
Environment scanning for opportunities		.418
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		



The factor analysis reduced the data into two main components. Innovation, creativity, risk-taking, problem-solving, critical thinking and risk management were factored into Skill set 1 and the remaining skills were factored into Skill set 2. A regression analysis was carried out in Section 8.8 to model the skills required to enter self-employment.

## **8.9 REGRESSION ANALYSIS**

Regression analysis is used in a situation where one independent variable is hypothesised to affect one dependent variable (Sekaran & Bougie, 2016). Bryman and Bell (2016d) describe regression analysis as a method of using observations (data records) to quantify the relationship between a target variable (a field in the record set), also referred to as a dependent variable, and a set of independent variables also referred to as a covariate. The process of performing a regression analysis allows one to determine which factors matter most and, in this study, a regression model was fitted to model skills required from school leavers to enter self-employment. The average score for the two skill sets was calculated and formed the explanatory variable and the variable (10), which asked how long the business was in operation, was used as the dependent variable.

Thereafter, SPSS software was utilised to perform a standard multiple regression analysis. Multiple regression analysis provides a means of objectively assessing the degree and the character of the relationship between the independent variables and the dependent variable; the regression coefficients indicate the relative importance of each of the independent variables in the prediction of the dependent variable (Sekaran & Bougie, 2016:314). The regression model summary is shown in Table 8.13.

### **8.9.1 Regression Model Summary**

Sixty-three percent of the variability is explained by the model, which is acceptable (Saunders et al., 2019). The yielding results are summarised in Table 8.14

**Table 8. 11: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794 <sup>a</sup>	.6304	.738	2.181
a. Predictors: (Constant), skillset 2, skillset 1				

The next section presents the results to test for the significance of the model, using an ANOVA test.

### 8.9.2 ANOVA Test

An ANOVA table was used to test the significance of the model. Since the p-value is less than the 5% level of significance, the model is significant. The model was significant as the Anova p-value is <0.05. All the regression coefficients were positive, which indicated that both Skills set 1 and Skills set 2 had a positive effect on how long a business would survive and further proved that all entrepreneurship skills were required for school leavers to enter self-employment. The yielding results are summarised in Table 8.14.

**Table 8. 12: ANOVA TEST**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1631.912	2	815.956	11.044	.000 <sup>b</sup>
	Residual	183964.418	249	73.881		
	Total	185596.329	251			
a. Dependent Variable: Age of business						
b. Predictors: (Constant), Skillset 2, Skillset 1						

### 8.9.3 Collinearity Test

A collinearity test was carried out to check whether the predictor or exogenous variables in a linear regression model are linearly related among themselves or with the intercept term. Collinearity refers to the non-independence of predictor variables, usually in a regression-type analysis (Cooper & Schindler, 2014). The yielding results are summarised in Table 8.15.

**Table 8. 13: Coefficients**

Coefficients								
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	17.804	24.928		.714	.001		
	Skillset 1	7.281	5.681	.097	1.282	.000	.689	1.451
	Skillset 2	3.450	5.563	.102	1.339	.000	.689	1.451
a. Dependent Variable: Age of business The VIF were all below 3, which indicates there were no problems of collinearity.								

The results from the collinearity test show that the Variance Inflation Factors (VIF) were all below 3, which indicates that there was no problem with collinearity. According to Bryman and Bell (2016), the VIF measures the inflation in the variances of the parameter estimates due to collinearities that exist among the predictors. It is a measure of how much the variance of the estimated regression coefficient  $\beta_k$  is “inflated” by the existence of correlation among the predictor variables in the model. Section 8.8.4 presents an analysis of the results.

#### **8.9.4 Regression Model Results**

Both Skillset 1 and Skillset 2 have a positive effect on how long a business operates ( $p < .05$ ). Thus, we accept that Skillset 1 and Skillset 2 have a positive effect on how long a business operates and all these skills are therefore important to be developed in school education for entrepreneurship, to empower learners.

#### **8.9.5 Factor Naming**

Factor naming involved putting names and placing the different skill sets produced in regression analysis in groups. Skillset 1 represents cross-functional skills that consist of cognitive and process skills that are required for the secondary school curriculum to enable students to enter self-employment, while Skillset 2 represents entrepreneurship skills that are important in the development of students’ competencies in entering self-employment.

The next section discusses the cross-functional and entrepreneurship skills required for the secondary school curriculum to enable students to enter self-employment.

### **8.9.6 Cross-Functional Skills**

According to Allen et al. (2013), cross-functional skills entail developing a working knowledge of all areas of the business, especially the roles, goals and needs of the various departments within the firm and are considered entirely possible and necessary for every self-employed individual. The greatest benefit of cross-functional skills in entrepreneurship is that they foster innovation (World Economic Forum, 2020). The use of cross-functional skills, especially for entrepreneurs in self-employment, enables individuals to use multiple areas of expertise together into a productive and encouraging work environment, thereby creating fertile ground for fresh ideas and new, game-changing insights to flourish (Kariv, 2011; Meager et al., 2011).

Brewer (2013) states that the relative importance of each cross-functional skill (cognitive, process, resource management and technical) may vary between the nature of the business (growth-oriented or lifestyle, for example) and between the different stages of the self-employed life cycle (pre-entry, entry and survival, growth). Barringer and Ireland (2012) stress that taking advantage of the cross-functional skills for a self-employed entrepreneur will smoothen the start-up phase process, while Meager et al. (2011) understand that to fully develop cross-functional skills, self-employed entrepreneurs must foster cross-functionality by creating and maintaining learning environments conducive to such an endeavour. The task of enabling conditions conducive to robust learning environments must be intentional (WEF, 2020).

The next section discusses the different cross-functional skills in detail.

#### **8.9.6.1 Cognitive Skills**

Research conducted by Acs, de Groot & Nijkamp (2013) and confirmed by Lynn and Vanhanen (2012) documented micro-level relationships between cognitive skill and various positive economic and social outcomes, including individual rates of successful entrepreneurship. Arcs

et al, (2013) posit that in a global economy, the same set of skills that enable an individual entrepreneur to innovate successfully within a country may well help a nation's entrepreneurs to compete globally. Besides, as the Global Entrepreneurship and Development Index (GEDI) captures both individual entrepreneurial attitudes and pro-entrepreneurship institutions at the country level, higher levels of cognitive skills may contribute to higher-quality institutions, which in turn promote successful, productive entrepreneurship (Arcs et al, 2013).

In the following sections, the cognitive skills – creativity, innovation, risk management and risk-taking will be discussed.

#### **8.9.6.2 Creativity**

Kariv (2011:76) states that founding a new business, developing products and services, or exploiting new organisational or business processes requires creativity, as a certain degree of thinking “outside the box” is needed to transform the business, products, or services into ones that are not simply “more of the same”, but at the same time remain appealing and attractive to potential clients. Creativity is based on the prevailing social, cultural, economic and political climates, as these, determine the direction that creativity will take. However, creativity is also attributed to the individual: by his/her ideas, the “process of bringing something new into being”, passion, commitment, and most of all, by revealing that which is hidden from “ordinary people's” view and pointing to something that will be new, creativity emerges (Zhao & Seibert, 2006).

Creativity is considered by many entrepreneurial researchers and practitioners as the mental part of the entrepreneurial process (Chell, 2013; Gibb, 2012f; Kariv, 2011:56). Unlike creative individuals who think beyond the standard paradigms, creative entrepreneurs have to go a step further and execute their creative ideas by committing to the pursuit of the opportunity, organising the necessary arrangements, processes and resources to do so, and managing the implementation of a strategy that will transform their creative ideas into a business. Most researchers in entrepreneurship consider the active implementation of a creative idea to be the primary difference between creative individuals and entrepreneurs (Hessels & Naude, 2011).

### **8.9.6.3 Innovation**

Barnes and Madison (2014) define cognitive innovation as identifying and applying mental models to develop a more integrative way of thinking about complex global problems while creating a solution economy. If entrepreneurs are to play an active part in all dimensions of life, they will need to navigate through uncertainty, across a wide variety of contexts: in time (past, present, future), in social space (family, community, region, nation and the world), and digital space. They will also need to engage with the natural world, to appreciate its fragility, complexity and value (OECD, 2018). At the core, all innovation begins with creative ideas (Kariv, 2011:62).

According to The African Technology Policies Studies Network (ATPS) (2012), every market segment for an entrepreneur is crowded with businesses doing the same things, selling the same products, or offering the same services. Because of this crowding of the market, a business needs to establish, innovate, develop, or otherwise identify certain areas of the business in which it can perform better than the competition, which is why innovation will always matter for an entrepreneur (Cooney, 2012). Schumpeter (1942:82-3) considers entrepreneurs as innovative individuals: “The function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention, or more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way by opening up a new way of supply of materials or a new outlet of products by reorganizing an industry and so on”.

The essence of entrepreneurship, according to Drucker (2010), is in creating new or different things, rather than improving already existing things. As such, according to Drucker, the intensive quest for innovation pushes many self-employed businesses to operate in dynamic, risky environments and to engage in innovation-oriented business culture (Drucker, 2010).

### **8.9.6.4 Risk-Taking**

Brown, Dietrich, Ortiz and Taylor (2007) explored the relationship between attitudes towards risk and self-employment using two US data sets: The Survey of Consumer Finances (SCF) and the US Panel Study of Income Dynamics (PSID). These two surveys include information on

individuals' attitudes towards financial risk, elicited from survey questions, which differed in content and design. The results indicated that the willingness to take financial risks is positively associated with the probability of self-employment. Moreover, this finding is most pronounced if individuals have started the business themselves and where they own 100% of the business (Brown et al., 2007).

Various mechanisms have been proposed through which a relationship might exist between risk preference and cognitive ability (Benjamin, Brown & Shapiro 2013). In a "two-system model", if latent risk preference is partly driven by the emotional, impulsive system-one, but higher cognitive ability entails greater control of decisions by the deliberative, calculating system-two, then there might be a causal impact of cognitive ability on latent risk preference (Benjamin et al., 2013). In this case, latent risk preference would be, at least partly, endogenous to cognitive ability.

From a policy perspective, Cho and Honorati (2013) confirm that for entrepreneurs to be successful (such as generating profit or creating jobs), a willingness to take risks is important. In designing policy initiatives to encourage self-employment and entrepreneurship (such as tax exemptions), it is important to encourage those individuals who have low levels of risk aversion into self-employment, as these are the individuals who are most likely to succeed in their entrepreneurial endeavours.

#### **8.9.6.5 Risk Management**

Dohmen et al. (2018) state that business risk assessment is important for an entrepreneur to come up with ways to cope with the global competition, increasing demographic change unfolding, and rapid technological change intensifying. Meager et al (2011) propose knowing business finance and having a background in terms of budgeting, bookkeeping and accounting, which is crucial to the success of a firm. According to Crane (2013), the risk is what makes it possible to make a profit. If there were no risk, there would be no return to the ability to manage it successfully. Risk management, on the other hand, is the practice of using processes, methods and tools to manage these risks (Dohmen et al., 2018).

Crane (2013) posit that for self-employed entrepreneurs identifying what could go wrong, evaluating which risks should be dealt with, and implementing strategies to deal with those risks are key skill requirements. Lugo and Espina (2014) emphasise that businesses that can identify the risks will be better prepared and have a more cost-effective way of dealing with them.

The next section analyses another category of cross-functional skills, which is process skills.

### **8.9 7 Process Skills**

Process skills are used to manage and modify actions in the completing of daily living tasks (WEF, 2020). Critical thinking and problem-solving are two of the most critical skills that every self-employed entrepreneur should have to be able to put available data and information to good use, analyse and evaluate facts, decide what is good when so many options are at one's disposal, and above all make incisive decisions (Allen et al., 2013; ATPS, 2012; Chell, 2013; Gibb, 2012; Meager et al., 2011).

The following process skills, critical thinking and problem solving, will be discussed next.

#### **8.9.7.1 Critical thinking**

Bradley and Price (2016) maintain that entrepreneurs often have to handle stressful situations, which are different and will vary with time and the character of the people involved. To develop the correct stance towards situations, they need to think critically and act decisively. For self-employed individuals, critical thinking is the ultimate key to problem solving and it is the most important problem-solving skill they should develop (ATPS, 2012). Barry and Fenton (2011) posit that critical thinking enables entrepreneurs to identify problems and turn such problems into opportunities; without critical thinking, business challenges and problems can never be resolved.

According to Kneller (1965:77), "One of the most justifiable charges that can be levelled against our education system is that it has neglected, all too often suppressed, the natural creativity of the young". It is generally acknowledged that creativity requires classroom



environments and educator behaviours where the educator is a facilitator, as opposed to a knowledge provider, understanding how young people think and how their brains evolve (Penaluna & Penaluna, 2015).

#### **8.9.7.2 Problem solving**

Beachboard and Aytes (2013) assert that self-employed entrepreneurs' day-to-day work of business requires solving problems (or assessing opportunities) and making decisions in a cloud of uncertainty, where there is no clear way to develop or choose among alternatives. According to ATPS (2012), each situation is different and therefore requires a different approach each time when it comes to problem solving; hence, an entrepreneur should have initiative when it comes to solving a problem. The initiative of an entrepreneur, which is critical to business success, is developed over time and any good problem-solver knows how to research, can keep going regardless of how many times he/she fails, find similarities between his/herself and others, and uses his/her initiative to seek out good solutions to problems (Hubbard, 2014:74).

The next section discusses Skillset 2, which is entrepreneurship skills.

#### **8.9.8 Entrepreneurship Skills**

According to The Bank for International Settlements (BIS) (2015), entrepreneurship skills are associated with competence in the process of opportunity identification (and/or creation), the ability to capitalise on identified opportunities, and a range of skills associated with developing and implementing business plans to enable such opportunities to be realised (Penaluna & Penaluna, 2015).

##### **8.9.8.1 Flexibility**

Khosia and Gupta (2017) assert that no matter how much of a perfectionist an entrepreneur is in running his/her business, it is impossible to control everything that happens, which is

why flexibility is a necessary trait to have. Flexibility provides an important competitive edge over other competitors, as an entrepreneur can exploit opportunities when they arise, spot gaps in the market, react quickly, outmanoeuvre slower-moving rivals, and respond to any developments in consumers' needs and preferences (Ismail & Zuliha, 2015). Having a flexible approach can play an important role in making an entrepreneur more resilient. It means that if he/she has to change tack to respond to difficulties, he/she would find it easier to adjust his/her expectations and goals to suit his/her new reality, as opposed to dwelling on what might have been.

Khosia and Gupta (2017) opine that flexibility is one of those characteristics that are essential for entrepreneurs and innovators who want to see success, with Fred Smith of FedEx and Henry Ford who failed many times in their early careers but were flexible enough to adapt and eventually find success. Ismail and Zuliha (2015) state that the start-up process is all about learning from your mistakes, iterating, and making something better. The important thing is to be willing to learn and grow as a person and a company. Flexibility will also allow entrepreneurs to solve problems more effectively, which should minimise mistakes over time. If an entrepreneur can learn from his/her mistakes, by listening to his/her customers and adapting his/her service or product, he/she might be able to achieve sustained success (Khosia & Gupta, 2017).

#### **8.9.8.2 *Enterprising***

Hubbard (2014) insists that when the internet reached the critical mass it changed far more than the social and shopping habits of all nations in the world. Only a few years ago the definition of a small firm was one employing fewer than 500 people. Today, 95.5% of firms by number in the world employ fewer than ten (World Bank, 2018). Young (2014) posits that the world of those now leaving education will be one in which self-reliance and creativity will be rewarded and the education system will have to adapt. Enterprise means more than just the ability to become an entrepreneur. It is that quality that gives an individual a positive outlook and the ability to see the glass as half full, rather than half empty.

Drucker (2010) opines that enterprising skill is a valuable attribute, which should be integral in the education system right from primary school. Enterprise is more than the creation of entrepreneurs; it is about a can-do and positive attitude and equipping people with the confidence to develop a career and vocational interests (Hietanen, 2015). Enterprise, therefore, supports the development of a wide range of work and professional skills and capabilities, including resilience, risk-taking, creativity and innovation, as well as a self-belief that starting a business is a viable career choice and one of the most exciting and challenging things a person will ever do (Young, 2014).

### **8.9.8.3 Time management**

Time and time-sensitive processes play a key role in entrepreneurship, from the timing of start-up decisions, growth activities and market entry, to the management of entrepreneurs' time, considered their "most valuable and scarcest resource of all" (Zachary et al., 2015: 1402). Lacking time in early-stage development can threaten a start-up by making it appear less promising than entrepreneurs initially thought and, as a result, it could "die" prematurely. Locke (2018) advises that money can buy more time to get things going, but without investing more time into growth, the business will be stuck on a plateau forever. Overall, a lack of time is a threat to entrepreneurs; in particular, it forces them to make significant trade-offs, including spending time to address recurring crises versus growing the business (Yoo et al., 2016).

According to Levesque and Stephan (2020), time matters at the micro (individual), meso (firm) and macro (context, e.g., cultural) levels for entrepreneurs (ATPS, 2012). Alam and De Diego (2019) insist that being attentive to time and its impact on individual entrepreneurs, their firms and their contexts could enable students to build a better entrepreneurial phenomenon by selecting an entrepreneurial career. Alvarez and Barney (2014) assert that time sensitises entrepreneurs to question when it might be best to add diversity in the firm, market entry timing and the consequences of the decisions made, which will eventually shape entrepreneurial opportunities and the nature of entrepreneurship.

#### **8.9.8.4 *Independent decision making***

Shepherd and Patzelt (2017) advocate that entrepreneurial decision-making is important because the strategic decisions entrepreneurs make have a major impact on the firm's future direction and performance. Reaching the height of business success will require taking reasonable decisions and calculated risks (Bakker & Shepherd, 2017). Many young start-ups make the foolish decision to forego analysis because they fear the answers. However, analysis allows you to make an informed decision (BIS, 2015).

Developments within the organisation, but clearly from the market, like customers' behaviour, competition threat, government regulations, suppliers and investors, have an impact on the organisation. All of these provide information that will have to be taken into account within the decision-making process and will lead to opportunities and threats (Alvarez & Barney, 2014) for the company. Based on this information the entrepreneur must take decisions on the strategic level to cope with the challenges and to determine the success of the strategic decision (Mulders & Van den Broek, 2012).

#### **8.9.8.5 *Environmental scanning for opportunities***

Opportunity recognition skill (ORS) is often considered the most important skill needed for an entrepreneur, even though the degree of this skill may vary for different paths to business ownership. The quality of opportunities identified and exploited for the management and growth of ventures would depend on the innovativeness of the entrepreneurial individual. Innovation is identified by many scholars as the distinguishing characteristic of an entrepreneur (Schumpeter, 1934; Drucker, 1998). The difference between mere venture creation and ensuring venture success lies in ORS, which is the essential constituent of entrepreneurship (Shane & Venkataraman, 2012).

In any opportunity-driven scenario, the entrepreneur has to be able to be an efficient "knowledge harvester" (APPG, 2014), not only to respond to the latest developments in fast-changing environments but also to absorb new facts and factors, for example, as in target audience characteristics or the learning of new skills. Krueger (1998) asserts that

opportunities are not discovered; they arise from changes in the environment. The efficacy of such attribution depends on two important perceptions, namely, perception of desirability and perception of feasibility. Taking decisions is not just a set of rules you use to evaluate new entrepreneurial opportunities (Al-Awlaqi et al., 2018). Although the entrepreneur may have the information, there needs to be a capability to combine this information to means-ends to discover the real opportunity (Bakker & Shepherd, 2017).

## **8.10 CHAPTER SUMMARY**

This chapter constitutes the last phase of the application of concurrent mixed methods research aimed at establishing an in-depth understanding regarding the development of a framework for entrepreneurship within the secondary school education system in Zimbabwe. The chapter provided insight into the quantitative results obtained from the CZI's registered members. The demographic profiles of the respondents were discussed and a descriptive analysis of the findings was provided. The chapter further presented reliability testing, factor analysis, and regression analysis, which were conducted on the results. The results indicated two skill sets, namely cross-functional skills and entrepreneurship skills.

Cross-functional skills are subdivided into cognitive skills (creativity, innovation, risk-taking and risk management) and process skills (critical thinking and problem solving), while entrepreneurship skills are flexibility, enterprising, time management, independent decision making and environmental scanning for opportunities. Both these skill sets are required for the Zimbabwe secondary school curriculum for students to be able to enter self-employment.

The next chapter presents the proposed framework developed for entrepreneurship within the secondary school education system in Zimbabwe, derived from the conclusions drawn from the previous chapters.

## CHAPTER NINE: CONCLUSION

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### 9.1 INTRODUCTION

The main aim of this study was to develop a framework for entrepreneurship within the secondary school education system in Zimbabwe. To accomplish this task, the study had to answer three key questions on a) the current status of entrepreneurship training in secondary schools; b) the success of entrepreneurship in the secondary school education system; and c) student entrepreneurship skills and self-employment. The findings presented in the previous chapters address these questions. In this chapter, the main findings are summarised, including discussions on the theoretical base of each of the three research questions. A relevant conclusion will be drawn.

### 9.2 SUMMARY OF FINDINGS AND RESULTS

This section presents the summary of the study's three research objectives.

#### **9.2.1 RESEARCH OBJECTIVE 1: THE CURRENT STATUS OF ENTREPRENEURSHIP TRAINING IN SECONDARY SCHOOLS**

The current status of entrepreneurship training in secondary schools was examined (refer to Section 3.2 in Chapter 3). Seven key themes emerged, namely professional development programmes, new teaching methods, inexistent entrepreneurship programmes, a lack of entrepreneurship training, compulsory teaching of entrepreneurship education, a lack of a conducive environment, and entrepreneurship and economic development.

##### **9.2.1.1 Professional development programmes**

The development of entrepreneurship in Zimbabwe, particularly in secondary school, will have to be premised on educating both the in-service and on training teacher who delivers lessons each day to students through a well-coordinated professional development

programme. The knowledge and experience gained by the teacher will spill over to the next generation of entrepreneurs, who in Marshall's (1930 cited in Aeeni et al., 2018) arguing from an economic theory perspective, views a successful entrepreneur as possessing many qualities, including creativity, judgement, perseverance, and a knowledge of the world, as well as of business (refer to Section 2.1.1 Chapter 2). These set of qualities will need teachers who are well informed on the subject of entrepreneurship.

Professional development centres should be designed to support teachers in mastering the entrepreneurship discipline and in developing entrepreneurship knowledge, skills and pedagogical competencies, which they will need to perform their different roles as teachers. This view is supported by the human capital theorists who suggest that education and training enhance the productivity of individuals by imparting useful knowledge, skills and levels of technology. Human capital theorists encourage spending on the nation's workforce because expenditure on training and development is a productive investment, such as an investment in physical assets (refer to Section 2.1.5 Chapter 2). Moreover, from the Zimbabwean perspective, teacher education in entrepreneurship is not yet fully incorporated into most national strategies and does not form part of teachers' continuous professional development. In this sense, entrepreneurship should be included in the secondary education curriculum in Zimbabwe as a priority area at all levels of teacher education.

#### **9.2.1.2 *New teaching methods***

A shift from a result orientated to a skill-based perspective in the teaching and learning of general concepts is needed in the education system in Zimbabwe. The acquisition of innovation and creativity skills that foster economic development through the introduction of new products on the market can be achieved when experiential learning, student-centred, creative problem solving, learning by doing, and inquiry-based learning are fostered within the education system. Sociologists, according to Singh et al. (2016), view entrepreneurial growth being dependent upon the ethical value system of the society concerned (refer to Section 2.1.3 Chapter 2). On the other hand, many countries (including Zimbabwe) are facing a shrinking global job market with economic indicators showing that this will increase the problems faced by students in the future. Therefore, it can be said that students need to be

prepared for such difficulties, which will be encountered in their later life. Consequently, it is recommended that such preparation should primarily start from within the teacher education curriculum.

#### **9.2.1.3 *Inexistent entrepreneurship programmes***

Whilst countries worldwide advocate that all young people should benefit from at least one practical entrepreneurial experience before leaving compulsory education, there are currently no definitive pedagogical guidelines for entrepreneurship education within schools in Zimbabwe. The sociological theory proposes that the entrepreneurial qualities of an individual or a group remain ingrained within the society that the person/group belongs to (refer to Section 2.1.3 Chapter 2). In the case of Zimbabwe, there was no guidance similar to the teaching and learning of entrepreneurship, which is present in other SADC states where it is taught in secondary school. The focus on entrepreneurship should be in educating and preparing secondary school students for a future consisting of more competition for jobs and a higher demand for creativity, initiative and entrepreneurial spirit. This view is further supported by Becker (1964), who affirms that the “human capital” approach led to entirely new ways of examining the labour markets because it is based on the principles that the more workers invest in education and training the higher their earnings (refer to Section 2.1.5 Chapter 2).

National policies in favour of the development and support of an entrepreneurial society need to be put in place where entrepreneurship programmes are introduced from primary school through to university level in Zimbabwe. Moreover, for entrepreneurship education to become a tool that enhances the capability of young people to be more entrepreneurial, it must be incorporated into all forms of learning, education and training - for all levels of education, from nursery school through to higher education. Entrepreneurship education can be considered as a general set of competencies for all walks of life, inclusive of, but not only about learning how to run a business.



#### ***9.2.1.4 Lack of entrepreneurship training***

The training of teachers in entrepreneurship is the fundamental goal towards the economic development and growth of any nation. Human capital theorist supports the notion of training and education, suggesting that education should be designed to create and enhance the supply of entrepreneurial initiatives and activities (refer to Section 2.1.5 Chapter 2). To prevent a worst-case scenario, a technological change accompanied by talent shortages, mass unemployment and growing inequality, reskilling and upskilling of today's teachers is critical.

While much has been said about the need for reforms in the basic education systems in Zimbabwe, it is simply not possible to weather the current technological revolution by waiting for the next generation's workforce to become better prepared. Instead, the government must take an active role in supporting teacher training through re-training teachers in entrepreneurship. The government should create an enabling environment, rapidly and creatively, to assist these efforts using business collaboration approaches within industries to create larger pools of skilled talent within students, who will become indispensable.

The importance of recognising the difference between education and training is underestimated, based on the view that both experience (from practical training) and knowledge (from education) are required to achieve entrepreneurial results (refer to Section 3.1.4 Chapter 3). The literature review distinguished between the two concepts as respectively being focused on the development of an entrepreneurial product (education) and refining the entrepreneurial process (training) (see Alvares, 2011; Deveci, 2016).

#### ***9.2.1.5 Compulsory teaching of entrepreneurship education***

Compulsory teaching of entrepreneurship education should be effected at all education levels of the Zimbabwean education system. Entrepreneurship is a force to be reckoned with, due to its overwhelming impact in facilitating the economic development and societal progress of a nation; thereby, rendering what economic theorists regard as an entrepreneur, who is a coordinator, modern leader and manager (refer to Section 2.1.1 Chapter 2). The entrepreneur's task is to innovate and to lead, which is deciding which objectives to pursue,

rather than deciding on how to pursue them. Hence, this notion strongly recommends that governments should support the establishment of entrepreneurship teaching as a compulsory subject within all secondary schools.

#### **9.2.1.6 *Lack of a conducive environment***

Conducive learning environments that foster entrepreneurship development should be developed within and across Zimbabwe if entrepreneurship skills are to be developed within students. Schools should endeavour to provide entrepreneurial environment points, which are key in providing an all-around student entrepreneurship learning experience that meets the rigours of academia while maintaining an experientially-based approach that enhances creativity and innovation. This view is supported by economic theorists who assert that an entrepreneur bears all the responsibility and exercises all the control, directing the production, taking business risks, coordinating capital and labour, and being both the manager and the employer (refer to Section 2.1.1 Chapter 2).

Moreover, students should participate in multidimensional entrepreneurship activities and discussions in less formal environments where their perceptions of the environment created and the evidence of changes in how they think about entrepreneurship are examined. The kind of experience generated by this approach steers entrepreneurial mindsets and experiences within students, which is far superior to the traditional classroom environment, which emphasises academic attainment at the expense of creativity, innovation and risk taking.

#### **9.2.1.7 *Entrepreneurship and economic development***

Perceptions about achievement in Zimbabwe need to shift towards a balance between academic and skill acquisition. The speed and nature of globalisation, technological change and innovation, changes in work organisation, environmental changes and demographic trends take different forms across countries and, in particular, Zimbabwe. These changes are affecting what kind of work is done, who carries it out, and where and how it is carried out. Some of these shifts risk widening existing inequalities and marginalising some groups in the

labour market. Opportunity identification and development proponents assert that market inefficiencies create disequilibrium profit opportunities, which through learning and being knowledgeable of these market gaps, enables entrepreneurs to exploit opportunities that arise (refer to Section 2.1.4 Chapter 2). Zimbabwe needs to embrace entrepreneurship in the education system, particularly in secondary schools, as the move will create students who will be well prepared for the future, who will become change agents, and positively influence their surroundings.

## **9.2.2 RESEARCH OBJECTIVE 2: SUCCESS OF ENTREPRENEURSHIP IN THE SECONDARY SCHOOL EDUCATION SYSTEM**

Key factors that involved the success of entrepreneurship in the secondary school education system were varied. They include the importance of entrepreneurship; a lack of a distinctive approach; skills mismatch; lack of familiarisation; lack of policy; lack of understanding of entrepreneurship; society's attitude; and job creation.

### **9.2.2.1 Importance of entrepreneurship**

Entrepreneurship is a reality. Hence, it should be taught to students in both primary and secondary education in Zimbabwe. According to the Schumpeterian Theory, there can be no entrepreneurial activity without action. Entrepreneurship is about acting and pushing oneself often relentlessly to achieve goals (refer to Section 2.1.1 Chapter 2). In entrepreneurial learning, the learner (whether an emerging entrepreneur, student, or serial entrepreneur) learns from everything, including doing, working creatively, thinking, experiencing, reviewing, applying, failing, succeeding, sharing, and functioning within social and personal networks. Hence, doing and experiencing are critical success factors, which should be incorporated in the entrepreneurial teaching of secondary school students.

It is argued that entrepreneurship is a learnt phenomenon but, on the other hand, it is said that entrepreneurs are born. However, the discussion supporting these opposing arguments in Chapter four supports the learnt phenomenon approach, rather than the 'being born' approach. It can be accepted that some people are naturally more entrepreneurial than

others (i.e., born entrepreneurs), but also that all individuals have, to a greater lesser or lesser extent, some entrepreneurial characteristics. From this perspective, it is concluded that every individual can exhibit some level of entrepreneurial behaviour, but that the level of such behaviour is determined by the individual experiences of entrepreneurs as they grow and learn from their environment (see Gibb, 2011).

#### **9.2.2.2 Lack of a distinctive approach**

There is evidence to suggest that there is limited exposure of secondary school students to industry-related internship programmes, which are meant to familiarise them with the world of work. Important to this study, and particularly for the development of entrepreneurship in secondary schools in Zimbabwe, is evidence presented in the literature review indicating that collaborating with industry and the community is vital to better prepare children and young people for future work and life (Ndofirepi, 2020; O'Higgins, 2017; UNCTAD, 2010). Moreover, the government needs to play a leading role by creating policies that enhance the chances of each secondary school student (Alam & De Diego, 2019; Edirisinghe, 2017; European Union YEDAC Report, 2020; ILO, 2020), and entrepreneurship education have a positive influence on students' entrepreneurial intentions (Blaschke & Hase, 2016; Global Entrepreneurship Monitor, 2014).

These findings lead to the firm conclusion that a clear distinctive approach to entrepreneurship is needed in Zimbabwe through the formulation of a policy framework. The implications of this conclusion and the accompanying demands brought forward for policymakers, educators, the industry and parents are to create an entrepreneurship environment for the development of entrepreneurship within the secondary education system.

#### **9.2.2.3 Skills mismatch**

Educational reform is urgently required to close the skills mismatch gap that exists between what schools are producing and what the industry needs. The literature review in Chapter 2 highlighted that the Human Capital Theory provides a framework that examines the impact

of acquired variables, such as education, learning and experience, on career outcomes. It was further developed on the assumption that education serves as a key determinant of decision choice and provides benefits to specific ventures (refer to Section 2.1.5 Chapter 2).

Entrepreneurship education in Zimbabwe cannot function in isolation of industry's needs in terms of human resources; hence, the government, the education sector, industry and commerce need to partner to formulate strategies that will bridge this mismatch gap. Hence, it is concluded that learning standards need to be aligned with career needs; regarding the fundamental elements of the skills mismatch, policies should be introduced to support students to make the right choices.

#### **9.2.2 4 Lack of policy**

There is a clear lack of policy in Zimbabwe regarding the teaching and learning of entrepreneurship, either as embedded, subject-based, or cross-curricula. The importance of an entrepreneurship policy, as well as the interlinking and underlying relationships with entrepreneurial development, was expounded in Section 4.2.4, Chapter four. In primary and secondary teacher education, there are no courses that improve the information and skills of pre-service teachers on entrepreneurship. Evidence suggests that there is a lack of an entrepreneurship framework in the secondary education system in Zimbabwe; hence, the transition of society from a “wage-earner culture into an entrepreneurial culture” will be difficult to develop over time (see British Council, 2020).

More and more countries in Sub-Saharan Africa and within the SADC region have developed frameworks for entrepreneurship development, especially in the secondary school education system. These are aimed at creating jobs, minimising the effects of unemployment and raising the GDP, knowledge spillovers, increased competition and increased diversity in terms of the product and service offering (see UNCTAD, 2010; World Bank, 2011). Zimbabwe lags in this approach and currently does not have an entrepreneurship framework specifically for entrepreneurship development in the secondary school education system.

The resulting conclusion is simply that a comprehensive policy needs to be adopted for the teaching and learning of entrepreneurship both in primary and secondary education in Zimbabwe. This policy is not only important but in fact a crucial prerequisite for entrepreneurial activity among secondary school students.

### **9.2.2. 5 Level of education**

Zimbabwe's literacy rate, which is ranked highly in Africa, should be used as a force to steer entrepreneurship development within the education system. Education is the key to national development. This is because it unlocks the economic potential of the people; empowers and equips individuals in society to participate in, and benefit from their national economy; facilitates economic development; and provides the basis for transformation.

The government should take education and the development of entrepreneurial thinking into account in the secondary education curricula and develop entrepreneurial skills and innovations as the pillars of economic recovery in Zimbabwe. A radical shift, involving Schumpeter's 'creative destruction' and the reorganisation of knowledge and pedagogy, is required to steer the development of entrepreneurship with the secondary school education system (refer to Section 2.1.1 Chapter 2). Above all, the supply of entrepreneurs, according to Max Weber, the proponent of the Theory of Social Change, is a function of the social, political and economic structure (Singh et al., 2016). Entrepreneurship in each society is linked to a large number of benefits, either independently or within an organisation; therefore, this concept is highly significant. These benefits include economic growth and development, productivity, and the creation of new technology.

The proposition by Gibb (2007:6) that the importance of entrepreneurship education is vested in an increasing demand for entrepreneurial behaviour imposed by modern societies, and the proposition by Jones and Iredale (2010:9) that the emergence of entrepreneurship education is a response to complex changes in both economies and societies, are adopted as relevant conclusions surrounding the importance of entrepreneurship education. The Zimbabwean education system needs to be promoted qualitatively and quantitatively. Policymaking and planning in entrepreneurship education should be one of the most crucial areas for the Zimbabwean government, as it will lead to the development of human capital,

which is the most decisive factor in the development or underdevelopment of the societies of Zimbabwe.

#### **9.2.2.6 *Lack of understanding of entrepreneurship.***

Lack of knowledge about entrepreneurship, and what it can do for the economy of Zimbabwe, affect its integration in communities, as well as its acceptance. Regardless of the current initiatives of the government, introducing a new education curriculum in 2017, the general Zimbabwean public has not yet grasped the idea of entrepreneurship. Lack of knowledge has led to a failure to realise the benefits of entrepreneurship education to the overall development and growth of Zimbabwe. This finding ingeminates the urgent call by Gibb (2006) for the development of an entrepreneurship/enterprise education model, which has wide appeal in all levels of education; that fits with broad educational goals; that allows for embedding in the curricula; that is conducive to ownership by teachers; and that allows for steady progression.

#### **9.2.2.7 *Society's attitude.***

The literature review indicated several shortfalls in understanding entrepreneurship education, including the lack of evidence that a career choice in entrepreneurship is attainable (Bautista & Orteg-Ruiz, 2015; Davey et al., 2016; Hennessy et al., 2015). Evidence suggests that entrepreneurship is not highly considered as a career choice by secondary school students, due to the attitude towards it, and the colonial mentality that persists regarding grades as a ticket to employment.

A country's attitudes toward entrepreneurship affect the propensity of individuals to become entrepreneurs, their ability to rebound from business setbacks, and the support that entrepreneurs receive (e.g., from family and relatives) when setting up a new enterprise. The sociological theorists advise that society is influenced by the religious and ethical beliefs it subscribes to. In the eyes of sociologists, driving entrepreneurial energies are generated by the adoption of exogenously supplied religious beliefs (refer to Section 2.1.3 Chapter 2).

The literature review outlined that countries follow divergent paths, which are influenced by local contexts and policy realities. Wales and Denmark adopted stand-alone entrepreneurship education in the early 2000s; since then, it has been mainstreamed into wider policies, including those on education, innovation and economic development (see European Union, 2016). In both Denmark and Wales, policy development began through a cross-government policy initiative and was advanced using comprehensive stakeholder engagement to build the entrepreneurial learning ecosystem (see Kariv, 2011). For many years, Malaysia has included the development of entrepreneurship skills in its economic plans, to contribute to the eradication of poverty in the country, and entrepreneurship education continues to be on the national agenda (see Hessels et al., 2011).

It can be concluded that concerted efforts are needed in the form of policy initiatives to encourage positive attitudes toward entrepreneurs by ensuring that all high school students in Zimbabwe are properly exposed to the concept of entrepreneurship through the use of global and local events, and multiple channels, to promote entrepreneurship (e.g. advertising, television and radio programmes, and social media). The development of entrepreneurship and business skills through education, as well as inclusion in the curriculum as a compulsory subject or as part of the syllabus in several subjects, can play a vital role in positively shaping attitudes towards entrepreneurship.

#### **9.2.2.8 Job creation**

Quality entrepreneurship education will enhance job creation, which will subsequently reduce unemployment and poverty, and improve the standard of living in Zimbabwe, which is the cardinal objective of the Millennium Development Goals for Zimbabwe only. Economic theorists agree that the entrepreneur plays a central coordinating role in production and distribution. The managerial role of the entrepreneur (Cantillon, 1755 cited in Rocha, 2012) is a prominent position in the entire system of production and consumption. In the words of Cantillon (ibid.), the entrepreneur “extends the entrepreneurial function”, whose task is to



innovate and to lead, which means deciding which objectives to pursue rather than deciding on how to pursue them (refer to Section 2.1.1 Chapter 2).

The recipient of this education, entitled entrepreneurship, may become a job creator rather than a job seeker through the acquisition of essential entrepreneurship skills. The literature review in Chapter five confirmed that a successful entrepreneur requires a set of skills (Gonçalves et al., 2017). The combination of opportunity, capabilities and resources are needed for these skills to be fully realised (Bartlett, 2013), and supporting young generations to learn how to become adaptable in a future workforce should become a greater focal point of the education system (WEF, 2016). Moreover, an individual has a set of skills or abilities, which they can improve or accumulate through training and education (Kerr et al., 2017), and a lack of such skills may be one of the most critical bottlenecks to growth in many lower and lower-middle economies, where a high degree of informality persists. In addition, the entrepreneur needs entrepreneurship skills to conduct his/her business, run it efficiently, and achieve goals to be successful (Bartlett, 2013; Chell, 2013; Chu et al., 2016).

It is concluded that the role of the government must be implicit; it must create the economic system necessary for entrepreneurship to thrive using integrated policy environments, which encourage youth start-ups, entrepreneurial ventures and business synergies that allow more jobs to be created.

### **9.2.3 STUDENT ENTREPRENEURSHIP SKILLS AND SELF-EMPLOYMENT**

The regression model results indicated that Skillset 1 and Skillset 2 both have a positive effect on how long a business operates ( $p < 0.05$ ). Thus, we accept the hypothesis that Skillset 1 and Skillset 2 have a positive effect on how long a business operates. The results identified Skillset 1 as cross-functional skills subdivided into cognitive skills, consisting of creativity, innovation, risk-taking, risk management and process skills, which consist of critical thinking and problem-solving skills. Skillset 2 comprised of entrepreneurship skills, which are flexibility, enterprising, time management, independent decision-making, and environmental scanning for opportunities.

### **9.2.3.1 Cognitive skills**

Cognitive skills encompass a wide array of mental skills, positively correlated with each other, which psychologists refer to as intelligence. Cognitive skills deal more with the mechanisms of how an individual learns, remembers, problem-solves, and pays attention, rather than with any actual knowledge.

### **9.2.3.2 Creativity**

Although entrepreneurs need to be competent in various skills, which include flexibility, goal orientation, planning, teamwork, communication, self-confidence, and the capacity to learn, their ability to be creative is deemed as the most prominent proficiency required for them to function effectively as entrepreneurs. They are confronted continuously by situations and tasks that need creativity, and how they approach and solve problems through creative means is pivotal in the success or failure of their business operations.

The true manifestation of entrepreneurial thinking is harnessing the power of creativity and moving an idea through the process of innovation to reach a final result.

The component skills are valuable in whether or not the venture makes a profit. Providing authentic and meaningful experiences for students to learn the process is critical in developing an entrepreneurial mindset and the capacity to apply those skills in any endeavour. Interestingly, children generally see themselves as creative, but they lose that creative confidence when they grow up. Unfortunately, much of that is a result of an educational system that is designed to reward conformity and compliance, while compartmentalising creativity into electives and extracurriculars.

Innovation

Success in our global, collective future will depend on the students of today using 21st-century skills to develop innovative solutions to key societal issues. The empowered student of the 21st century should not only know how to use technology but should know how to use technology to turn innovation into services, goods or efficiencies that contribute to the local and regional economies, and most importantly the economy of Zimbabwe.

Technology, especially artificial intelligence, robotics and virtual reality, continues to improve at breakneck speed. It will relieve humans of much, if not eventually all, of our mundane, daily tasks, both at home and in the work world, which is why students in Zimbabwe must learn and develop the skills that cannot be replaced by machines. Teaching them that they have a voice and helping them develop methods to act on their passions will empower them to reach their potential while their enthusiasm and energy are high, rather than the common attitude that they cannot accomplish anything until or unless they earn a degree. These challenges have no obvious solution – innovation is key.

Just like core subjects, innovation needs to be started at a young age, and be taught, experienced and built upon as a student progresses through his/her educational career. Ideally, innovation should be a core subject at every grade level, scaffolding from creativity through storytelling, collaboration, design and entrepreneurship by the end of middle school. Students beginning high school would then have the skills to bring to their chosen focus areas and tackle difficult problems with real, meaningful projects to solve issues within their school, community, and even the world.

#### **9.2.3.3 Risk-taking**

Risk as an attribute that can be learned will help students to identify trends and develop an awareness of cause-and-effect relationships in their environment. These skills not only enable students to fix things when they break but also to anticipate what might happen in the future (based on experience and current events). Risk-taking can be applied to anticipated future events and be used to enable action in the present to influence the likelihood of the event occurring and/or to alter the impact if the event does occur.

#### **9.2.3.4 Risk management**

Risk management as an entrepreneurship skill will enable students to identify, analyse and respond to risk factors that form part of the life of a business. The knowledge gained through this process will have lasting effects on the student's ability to control as many as possible

future outcomes by acting proactively, rather than reactively, to situations. Risk management as a skill is an important process that empowers the entrepreneur with the necessary tools to adequately identify and deal with potential risk. Mitigation strategies will enhance students' capabilities in the future to make sound decisions about their businesses.

#### **9.2.4 Process Skills**

Process skills are ways of thinking about and interacting with materials and phenomena that can lead to an understanding of new scientific ideas and concepts. By using these skills, students can gather information, test their ideas, and construct scientific explanations of the world.

##### **9.2.4.1 Critical thinking**

Utilising the right degree of critical thinking is vitally important for business success. Students need to be trained to be solutions-oriented if they are to succeed in their business endeavours. There is no better way to do this than to involve them in the critical thinking aspects of entrepreneurship. Critically solving problems will have to be based on experience, analysis, strong intuition, or near certainty. Coming up with an “A” solution is not the same as coming up with the best solution. Critical thinking will involve using the filters listed above to consider several solutions and then deciding promptly. Before any decision is made, the decision-maker needs to think about the possible consequences, both the good and bad, of that course of action, which is why critical thinking needs to be included in secondary school education in Zimbabwe as a critical entrepreneurship skill.

##### **9.2.4.2 Problem-solving**

Problem-solving is at the core of human evolution and as such should be included as one of the key process skills that need to be taught to secondary school students in Zimbabwe. The value and benefit of the problem-solving skill are that it enables entrepreneurs to understand what is happening in the environment in which their business is set, it helps them to identify

elements they want to change in their business, and it allows them to figure out what needs to be done to create the desired outcome.

Problem-solving is the source of all new inventions, social and cultural evolution, and the basis for market-based economies. It is the basis for continuous improvement, communication and learning. Developing problem-solving skills in business, while in secondary school, will help students to diagnose the state of the markets and establish the factors and forces that influence it, develop approaches and alternatives to influence change, and make decisions about which alternative to select.

### **9.2.5 Entrepreneurship skills**

Entrepreneurial skills encompass a broad range of various skill sets, such as technical skills, leadership and business management skills, and creative thinking. Because entrepreneurial skills can be applied to many different job roles and industries, developing entrepreneurial skills can mean developing several types of skill sets.

#### **9.2.5.1 Flexibility.**

The teaching of flexibility as an entrepreneurial trait to secondary school students will help them to overcome challenges, embrace change, and like water, find the path of least resistance. A challenge faced by entrepreneurs in today's ever-changing and dynamic business environment and in the near future is they all have a plan of what they want to do, but they do not know how to respond to the changes when something unplanned happens. They cannot react effectively to unforeseen situations; hence, the inclusion of flexibility as an entrepreneurship skill taught in secondary school becomes relevant as students could acquire the necessary skills while learning.

Flexibility is crucial in the ever-changing business environment, especially in situations when all else fails. If one marketing strategy fails, the entrepreneur has to be ready to try another. As a business leader, the entrepreneur has to adopt a flexible mindset, to cater to the

changing needs of the situation. Flexibility as an entrepreneurship skill would also enable students to view every obstacle in the business world as an opportunity for learning, and this exposure at an early stage would give them confidence and a calm demeanour when solving problems. The more focused they are, the higher the chances of problems being solved.

#### **9.2.5.2    *Enterprising.***

Individuals and organisations do not exist in isolation in the environment. There is a complex and ever-changing web of relationships and, as a result, the actions of one person will often have either a direct impact on others or an indirect impact by changing the environment dynamics. These interdependencies enable students to work together to solve more complex problems, but they also create a force that requires everyone to continuously improve their performance to adapt to the improvements implemented by others. Enterprising helps students to understand relationships and implement the changes and improvements needed to compete and survive in a constantly changing environment.

#### **9.2.5.3    *Time management.***

Time management as an essential entrepreneurship skill will teach students about critical activities. Thus, to say no to actions/plans that do not add value to their businesses, and prioritise those activities that add the most value, and which allow their businesses to execute their business plans successfully.

#### **9.2.5.4    *Independent decision making.***

The relevance of education in entrepreneurship at the secondary school level worldwide should not be disregarded, considering that these learners are on the verge of making the consequential choice of a career. Considering the deteriorating economic situation and high unemployment figures globally, entrepreneurship and self-employment are likely to be vocational options, especially in emerging economies, and might even be chosen above the decision to proceed with tertiary education. Independent decision-making skills are crucial

for a student to learn while still in a secondary school as they will not only equip a student for the decision-making process for a career choice, but also the business that he/she will open after school.

Secondary school education should elevate learners' awareness of the option to be entrepreneurs, and because entrepreneurship does not exist as a school subject in Zimbabwe, the best way of achieving this awareness is by incorporating practical entrepreneurship activities into the curriculum.

#### **9.2.5.5 *Environmental scanning for opportunities.***

Environmental scanning for opportunities as a skill in entrepreneurship is not only about responding to (and fixing) the environment that exists today. It is also about innovating, seeing the gaps, and changing the environment to be more desirable. Environmental scanning for opportunities will enable students to identify and exploit opportunities in the environment and exert (some level of) control over their future.

Environmental scanning for opportunities, and the environmental scanning for opportunities process, is a critical part of daily life, both for students as individuals and for the businesses that they will create. Developing and refining these skills through training, practice and learning can provide the ability to solve problems more effectively and, over time, address problems that have a greater degree of complexity and difficulty.

### **9.3 RECOMMENDATIONS.**

A study at this level cannot be concluded without formulating practical and attainable recommendations to achieve its objectives and contribute to the existing body of academic knowledge on the development of a framework for entrepreneurship within the secondary school education system in Zimbabwe. Consequently, the recommendations to follow are presented within this context in the hope that it might encourage educators, other academic

scholars, and active entrepreneurs to take the giant leap towards promoting effective [youth] entrepreneurship development in Zimbabwe.

### ***9.3.1 Entrepreneurship Policy Framework.***

The first recommendation for effective entrepreneurship development to occur is for the government to formulate a policy framework on entrepreneurship development in Zimbabwe, leveraging entrepreneurship education throughout a national strategy in all the relevant areas (e.g., education, integration, job creation, employment and innovation). The policy framework will be advised by a network committee comprising interconnected stakeholders and partnerships, cross-ministerial departments, NGOs, businesses, schools, universities and teachers' colleges, entrepreneurs, and commerce and industry. The network committee will facilitate strong stakeholder relations; create win-win situations; as well as involve stakeholders in designing, planning, implementing and evaluating policy and activity.

### ***9.3.2 Extension of Entrepreneurship in The Education System.***

Entrepreneurship is a priority area; hence, it should be included in the education system in Zimbabwe – beginning from the national curricula, as well as in all tertiary education. The network committee should be part of the curriculum development process, providing support in all educational fields, to set up a clear progression plan. Entrepreneurship education should be provided in initial teacher training, as well as in continuous professional development for teachers. An entrepreneurial culture should be encouraged in schools, whereby everyone inside the educational institution as well as local organisations (NGOs, local authorities, parents and students' associations and businesses) are involved and aware of their role. The local community should become involved (including local entrepreneurs, businesspeople, chambers of commerce, business intermediary organisations, and community organisations) in the design and delivery of entrepreneurship education and related activities.



### ***9.3.3 Provide Entrepreneurship Education in initial and Continuous Teacher Training***

Teachers' Colleges should seek out/develop user-friendly tools, materials, methods and programmes at all levels for teachers and students. In addition, all teacher training colleges are encouraged to implement entrepreneurship education, not only as course content but as a teaching method. Moreover, the implementation of in-service training and internships for teachers to expose them to entrepreneurship education programmes should be a requirement. Quality assurance instruments should also be implemented as a measure of entrepreneurship development in schools. In addition, entrepreneurship should be included in all subjects in teachers' training colleges. Furthermore, teachers should be trained to enable them to effectively integrate entrepreneurial learning in the subjects they teach. Lastly, awareness among teachers should be raised of the importance of integrating entrepreneurship education in the curriculum.

### ***9.3.4 Create Visibility for and Raise Awareness of the Importance of Entrepreneurship Education***

Institutions of learning, which include universities, colleges, schools and government departments, should set concrete targets for the penetration of entrepreneurship education in all their levels of education and improve access for all students, including students with disabilities, socially disadvantaged students and immigrant students. Moreover, the key competence approach to entrepreneurship education should be strengthened in the national and school-level curricula, so that it becomes the primary focus in all institutions. Additionally, the focus on entrepreneurship education as a broad concept should include social entrepreneurship, business ethics, financial education, digital skills and technologies, opportunity recognition, and knowledge of the legislative process. Furthermore, institutions of learning should seek broad engagement from different organisations, such as employers' organisations, unions, chambers of commerce and industry, and other national organisations from the financial or start-up community, which could support and strengthen the dimensions in entrepreneurship education.

Strong involvement from businesses, particularly SMEs, and the contribution of the private sector should always be acknowledged. There is an increased need to develop and maintain sustainable partnerships between the business community and education to provide practical entrepreneurial experiences. This should be encouraged and supported by the national authorities.

### ***9.3.5 Establish Long-Term National Funding and Leverage Entrepreneurship Education throughout the National Strategy***

A national budget earmarked for entrepreneurship education and funding streams to schools should be set up, taking into consideration tax incentives for businesses that support entrepreneurship education. Entrepreneurship education plays a key role in skills development and school engagement; hence, this can be key in the integration strategy for marginalised students. As a way of encouraging start-ups at a micro stage, schools should create links between the start-up ecosystem and entrepreneurship education. Teachers, principals and staff, students, student associations and other groups should be involved as agents of change in the systems. Entrepreneurship education should be part of a school's strategy, and these plans should be communicated to teachers, students, parents and the local community.

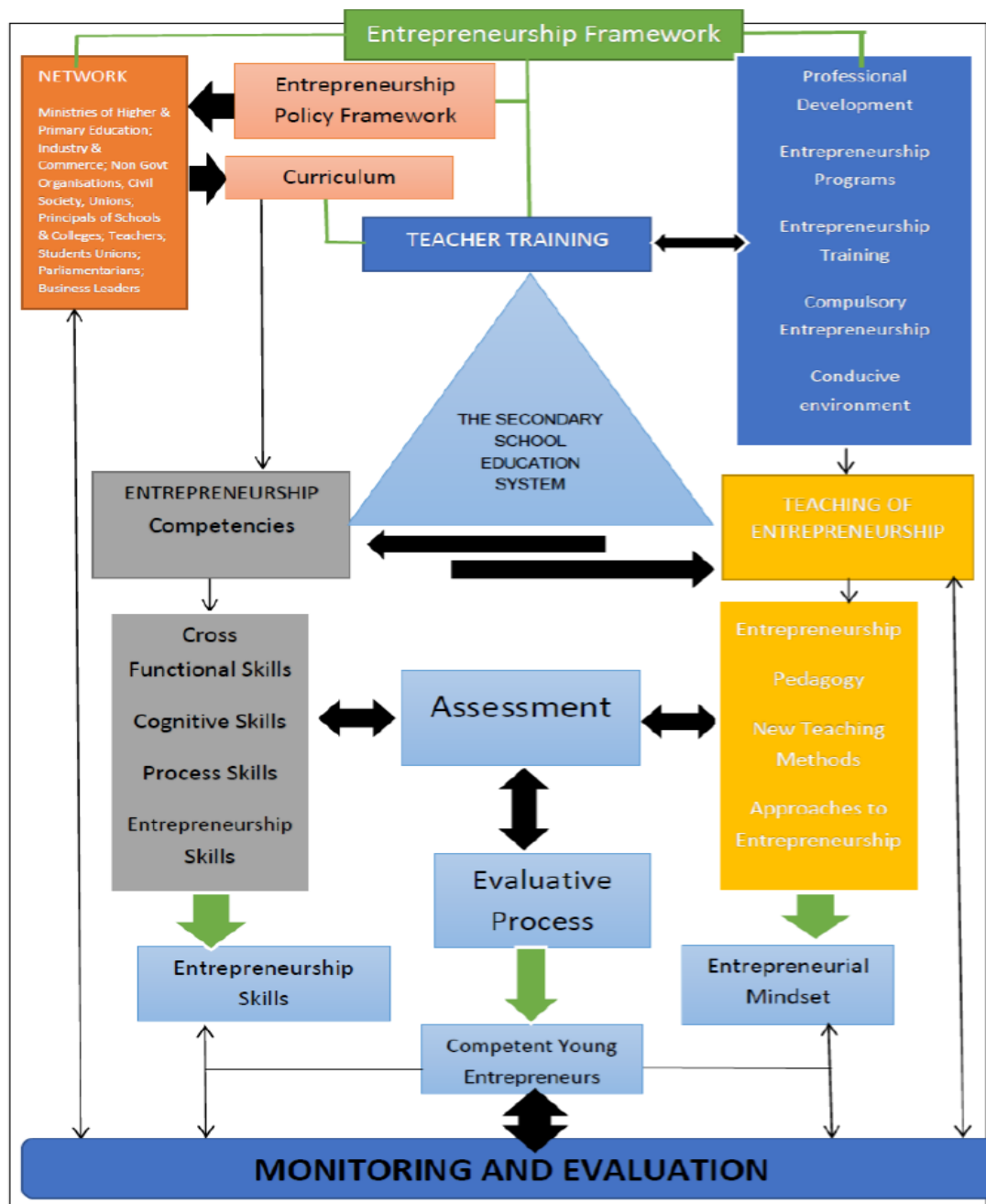
### ***9.3.6 Map Activity, Monitor Progress and Measure Impact***

Mapping the spread and measuring the impact of entrepreneurship education initiatives is crucial in building targets against which to evaluate and monitor the national plan. A national assessment instrument for students (and teachers) should be introduced to ensure that both the formal and informal learning pathways in entrepreneurship education are validated. In this way, competitions, innovation camps, trade fairs and other cooperation with the local community (including businesses and other actors) could be encouraged. Investment in impact research and longitudinal studies should also be encouraged.

## 9.4 STUDY CONTRIBUTION: A FRAMEWORK FOR ENTREPRENEURSHIP WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE

The recommendations to introduce a framework for entrepreneurship within the secondary school education system in Zimbabwe, formulated in Section 9.5.1 to Section 9.5.6 above, are combined in Figure 9.1:

**Figure 9.1: Framework for Entrepreneurship Education**



The following sections unpack the entrepreneurship framework providing details of relationships between components beginning with the network.

#### **9.4.1 *The Network***

The network comprises key stakeholders of the entrepreneurship development framework with government ministries involved with and overseeing EE development efforts in the Zimbabwean education system. The network guides the following ministries, Ministries of Primary and Secondary Education; the Ministry of Higher and Tertiary Education, Science and Technology Development; the Ministry of Small to Medium Enterprises; Ministry of Industry and Commerce; civic organisations; parliamentarians; the Provincial Education Directions in Education; teachers unions and business leaders. The main goal of the network is to increase the uptake of EE at all levels of education and within all target groups. Recommend policy on the adoption of EE which merges with the current curriculum policy on secondary schools. Organise programmes for EE development, collaboration and assessment. They should work together in ensuring that entrepreneurship development within the secondary school education system is successful.

#### **9.4.2 *The Policy Framework***

The network will formulate the entrepreneurship policy framework. This will enable curriculum reforms on entrepreneurship education development, particularly in secondary school, to be developed beginning with teacher training, as teachers are critical players in the delivery of lessons to students.

#### **9.4.3 *Teacher Training***

Successful entrepreneurship education programmes within the secondary school education system will hinge mainly on the abilities of the teacher to teach EE successfully to students which in a way would invariably promote interest amongst students to start-up businesses after formal education, Hence teacher training is key to all this. Professional development programmes and initiatives, entrepreneurship training, compulsory teaching of

entrepreneurship within the secondary school set up, and the creation of learning environments that include business hubs within teacher training colleges as well as in schools, which will allow for effective teaching and mastering of entrepreneurship education concepts.

#### ***9.4.4 Teaching Entrepreneurship***

The teaching of entrepreneurship will involve developing an entrepreneurship pedagogy for both teachers in training and for secondary school students, which will enhance learning for students, especially in entrepreneurship; new teaching methods that prepare students for post-secondary learning and self-employment; and new approaches to teaching and learning that expose students to aspects of the world of work during the learning process. The teaching of entrepreneurship should bring about two vital factors in the entrepreneurship development of learners, particularly in secondary schools. These are the development of entrepreneurship competencies and the entrepreneurship mindset.

#### ***9.4.5 Entrepreneurship Competencies***

Entrepreneurial competencies are the key underlying characteristics, such as generic and specific knowledge, motives, traits, self-image, social roles and entrepreneurship mindset skills, which result in a venture's birth and survival, and/or the growth of businesses. These characteristics determine whether an entrepreneur possesses the appropriate abilities, the possession of which in turn affects his/her decision to start the business, and ultimately, its success. It is therefore vital to include in EE to develop this in learners as potential entrepreneurs.

#### ***9.4.6 Entrepreneurial Attitudes, Skills & Intentions***

Exposure to entrepreneurship teaching and learning will develop in students a set of skills that enable them to identify and make the most of opportunities, to overcome and learn from

setbacks, and to succeed in a variety of settings. Both the teachers' and learners' mindsets toward entrepreneurship need to be developed – why and how?

#### **9.4.7 Assessments**

Assessments will serve to fill the gap between the desired outcomes and what the student has achieved. In this context, not only is assessment essential to promote entrepreneurial learning in students, but it also permits teachers to reflect on and enhance their programmes. The following factors are key in facilitating the assessment programmes,

1. **Entrepreneurial Finance**: Finance must be made available to promote student ideas to be fully developed into start-up businesses hence assessment should begin at this stage where the number of students who register and operate a business will effectively provide statistical information on the success of the EE programs in secondary schools. Fund/business competitions can be held where financial institutions within the network come in to assess the level at which students can start-up businesses.
2. **Government policy**: The extent to which emphasis is placed by government on entrepreneurship education programmes within schools is key in assessing the impact it will have on economic development.
3. **Entrepreneurship Education Training**: The uptake of EE programmes within teacher training colleges as well as in schools is a measure on the impact of EE and can be used as an assessment tool to check on progress, challenges and effects of entrepreneurship.
4. **Cultural & Social Norms**: The extent to which society values entrepreneurship as a career choice where more students opt for self-employment as an outcome of EE are assessment tools that guarantee the effectiveness of the entrepreneurship framework.

### **9.4.8 Evaluation and Monitoring**

The main purpose of evaluation and monitoring is to control the quality and effectiveness of the entrepreneurship process at every key stage – the network, the policy framework, the curriculum, teacher training, the teaching of entrepreneurship, entrepreneurship competencies, and the development of entrepreneurship mindset. The entrepreneurship framework is key to the following areas,

1. **Teacher training and development** (*Ministry of Higher & Tertiary Education, Innovation, Science & Technology, Principals of Teachers' Colleges*).
2. **Implementation of EE in secondary school education** (*Ministry of Primary & Secondary Education/Provincial Education Directors/School Heads & Teachers*).
3. **Enterprise development** (*Ministry of Industry & Commerce and the Ministry of Small To Medium Enterprises*).

A continuous evaluation programme to determine the overall success of the entrepreneurship framework is done at each ministerial level, keeping in mind economic trends and changes that may arise. The comments and inputs received from the relevant ministries involved, Ministry of Higher & Tertiary Education, Innovation, Science & Technology, Ministry of Primary & Secondary Education, Ministry of Industry & Commerce and the Ministry of Small To Medium Enterprises indicate that EE is critical for Zimbabwe and a framework for its adoption was welcoming element to efforts already being carried out to curb the unemployment gap as well align their goals to the 2030 vision of Zimbabwe.

## **9.5 LIMITATIONS OF THE STUDY**

All research has limitations and this study is no exception. Firstly, this study utilised mixed method research; therefore, the findings may be time-specific and lack generalisability over time.

The second limitation is in relation to the research context. The study used empirical data from a single developing country and, thus, the findings are limited to Zimbabwe and may not be generalisable to other countries in the region and beyond (Fayolle & Liñán, 2014; Hoskisson et al., 2011). However, other countries may glean insights into.... from this study.

The third limitation relates to population size in the quantitative area. A total of 274 questionnaires were sent out, with 252 completed. Thus, 22 questionnaires were not complete.

Lastly, the benefits of splitting entrepreneurship skills for self-employment and teacher training and the teaching of entrepreneurship could have been more explicit; thereby, adding value to the field of entrepreneurship education.

## **9.6 FURTHER STUDIES**

In light of the findings and the limitations of the research, directions for future research are suggested. First, future studies could consider employing a longitudinal research design to evaluate the entrepreneurship skills for self-employment over an extended period. For instance, studies could compare entrepreneurship education participants and non-participants before and after the educational intervention. This would allow for the intervening role of entrepreneurship education to be assessed over time.

Secondly, more countries (other than Zimbabwe) could be involved to contribute information on the development of entrepreneurship education within the secondary education system. For example, samples from two or more countries, or different levels of economic development, could be compared.

Thirdly, continuous academic research is critical on the development of entrepreneurship, especially in developing countries, which have not yet embarked on the process.

Fourth, future studies should consider including other factors at individual and institutional levels to explore their effects on the effectiveness of entrepreneurship. For example, among



background factors, researchers could consider assessing the impact of the possibility that some students are advised by their parents or influenced by their friends to pursue entrepreneurship programmes.

Fifth, further studies should be able to evaluate whether the proposed framework for entrepreneurship within the secondary school education system in Zimbabwe is bearing fruit. This would allow changes to be made, which would be beneficial for the economic development of Zimbabwe.

Lastly, future studies should involve students in the research to determine whether they are interested in selecting entrepreneurship as a career choice.

## **9.7 CONCLUSION**

The study's findings and the proposed framework outlined in Figure 9.1 offer some insights into the practice of entrepreneurship education development. If implemented, the framework could benefit the learners in the secondary school education system in Zimbabwe. This could also result in the development of entrepreneurs within the secondary school system.

Furthermore, the study's results could also be important for the government, which has the responsibility to provide the necessary laws and regulations to facilitate entrepreneurship development.

This finding is consistent with Ahmed and Nwankwo (2013), who posit that failure by governments to put regulations in place, which contribute to entrepreneurship development, has resulted in them having to make up the leeway in terms of high unemployment figures. The study's findings advise strongly for the enactment of an entrepreneurship policy framework, which could act as an instrument to boost entrepreneurship development within the secondary education system in Zimbabwe. The primary role of the government would be to bring the worlds of business and education closer together, and for chambers and business organisations to play a key role in entrepreneurship development.

This study also noted that entrepreneurship is a fairly new area in Zimbabwe and one that is yet to be explored in the country. The results further indicated a need to realign teacher training and teaching methodologies to suit the demands of what the world requires from the product of a 21st-century school. Moreover, industry and commerce highlighted a mismatch gap between what is expected by industry and what the education sector is producing. As previously observed, the situation requires the government to institute proper research and development capabilities to understand the mismatch gap (see Allen et al., 2013). There were indications that secondary school students need to acquire entrepreneurship skills, which would assist them later in life. In this regard, the education sector needs to embrace entrepreneurship by developing the concept of entrepreneurship in secondary schools, using this study's entrepreneurship framework.

In conclusion, the proposed entrepreneurship framework presented in this study could be useful in addressing the complex and diverse issues in the secondary school education system in Zimbabwe.

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## APPENDIX B: LIST OF ANNEXURES

### ANNEXURE B1: ETHICAL CLEARANCE LETTER



#### GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

03-Oct-2019

Dear Mr Kondo, Tirivangani TJ

#### Application Approved

Research Project Title:

**A FRAMEWORK FOR DEVELOPMENT OF ENTREPRENEURSHIP WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE**

Ethical Clearance number:

**UFS-HSD2018/1471**

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

**Prof Derek Litthauer**

**Chairperson: General/Human Research Ethics Committee**

Digitally signed  
by Derek  
Litthauer  
Date: 2019.10.03  
22:44:24 +02'00'

205 Nelson Mandela  
Drive  
Park West  
Bloemfontein 9301  
South Africa

P.O. Box 339  
Bloemfontein 9300  
Tel: 051 401 9398 /  
7619 / 3682  
[RIMS@UFS.ac.za](mailto:RIMS@UFS.ac.za)  
[www.ufs.ac.za](http://www.ufs.ac.za)



## ANNEXURE B2: MINISTRY OF HIGHER AND TERTIARY EDUCATION, INNOVATION, SCIENCE AND TECHNOLOGY DEVELOPMENT CONSENT LETTER

All official communications should be addressed to:  
"The Secretary for Higher & Tertiary Education  
Telephones: 795891-5, 796441-9, 730055-9  
Fax Numbers: 792109, 728730, 703957  
E-mail: [thesecretary@mhet.ac.zw](mailto:thesecretary@mhet.ac.zw)  
Telegraphic address: "EDUCATION"



Reference:

MINISTRY OF HIGHER AND TERTIARY  
EDUCATION, SCIENCE AND  
TECHNOLOGY DEVELOPMENT  
P. BAG CY 7732  
CAUSEWAY

31 October 2019

Mr T.J. Kondo  
Rydings College  
P.Bag 2116  
**KAROI**

Mr Kondo

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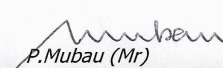
### **REQUEST FOR AUTHORITY TO CARRY OUT RESEARCH ON "A FRAMEWORK FOR THE DEVELOPMENT OF ENTREPRENEURSHIP WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE": MINISTRY OF HIGHER AND TERTIARY EDUCATION, SCIENCE AND TECHNOLOGY DEVELOPMENT**

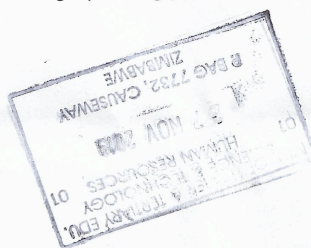
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Reference is made to your letter in which you requested for permission to carry out a  
research on **"A FRAMEWORK FOR THE DEVELOPMENT OF ENTREPRENEURSHIP  
WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE":  
MINISTRY OF HIGHER AND TERTIARY EDUCATION, SCIENCE AND TECHNOLOGY  
DEVELOPMENT.**

Accordingly, please be advised that the Head of Ministry has granted you permission to  
carry out the research.

It is hoped that your research will benefit the Ministry and it would be appreciated if you  
could supply the office of the Permanent Secretary with a final copy of your study, as the  
findings would be relevant to the Ministry's strategic planning process.

  
P. Mubau (Mr)  
Deputy Director - Human Resources  
**FOR: PERMANENT SECRETARY**



## **ANNEXURE B3: INTERVIEW GUIDE RESEARCH OBJECTIVE 1**



### **Semi Structured Interview Guide 1**

#### **A framework for the development of entrepreneurship within the secondary school education system in Zimbabwe**

##### **Introduction**

I want to thank you for taking the time to meet with me today. My name is Tirivangani Jona Kondo a postgraduate student studying towards a Ph.D. in Business Administration at the University of Free State. I would like to talk to you about entrepreneurship and entrepreneurship skills within the secondary school education system in Zimbabwe. The one on one interview will initially require up to 1 hour, with possible similar follow-up time. The interview will be tape-recorded to facilitate for collection of information and later transcribed for analysis. I will be taking some notes during the session and would urge you to speak up so that we don't miss your comments. All information that will be provided will be considered completely confidential. The participant's name will not appear in any of the reports resulting from this research, however, with the participants, permission anonymous quotations may be used.

Remember, you don't have to talk about anything you don't want to, and you may end the interview at any time. Do you have any questions about what I have just explained? Are you willing to participate in this interview?

Main Question	Probes	Clarifying Questions (To be used as needed)
Q.1. What professional development programs exist for teachers in secondary school education in Zimbabwe to meet the current changes in the world of today?		<p>Can you expand a little on this?</p> <ul style="list-style-type: none"> <li>• Can you tell me anything else?</li> <li>• Can you give me some examples?</li> </ul>
Q.2. Do you think that the used teaching methods in secondary schools in Zimbabwe should be updated to enhance students' creativity and innovation towards self-employment?		
Q.3. What entrepreneurship training programs exist for trainee teachers in Teachers' Colleges?		
Q.4. Do you consider entrepreneurship training for teachers while in college as a critical factor towards entrepreneurship development in Zimbabwe?		
Q.5. Since entrepreneurship education is a transversal competence should it be available to all students and be taught as a theme or rather than as a separate subject at all stages and levels of secondary education?		
Q.6. Do teacher training colleges in Zimbabwe offer a conducive environment to foster entrepreneurship development programs within trainee teachers?		
Q.7. What challenges exist in Teachers Colleges currently that inhibit the successful implementation of entrepreneurship training for trainee teachers?		



## **CLOSING SECTION**

Are there any responses you would like to elaborate upon or questions that you would like to ask me about the things we discussed in this interview?

Thank you very much for your time



## ANNEXURE B4: MINISTRY OF PRIMARY AND SECONDARY EDUCATION CONSENT LETTER

*All communications should be  
addressed to  
"The Secretary for Primary and  
Secondary Education  
Telephone: 732006  
Telegraphic address :  
"EDUCATION"  
Fax: 794505*



Ministry of Primary and  
Secondary Education  
P.O Box CY 121  
Causeway  
**HARARE**

19 September 2018

Tirivangani Jona Kondo  
Rydings School  
209 Kilometer Peg Along Harare – Chirundu Road  
P Bag 2116  
Karo

Re: **PERMISSION TO CARRY OUT A DOCTORAL RESEARCH AT THE  
MINISTRY OF MINISTRY OF PRIMARY NAD SECONDARY  
EDUCATION.**

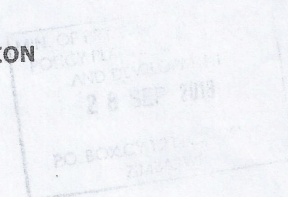
Reference is made to your application to carry out a Doctoral research at the above  
mentioned institution on the research titled:

**"A FRAMEWORK FOR DEVELOPMENT OF ENTREPRENEURSHIP WITHIN  
THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE."**

Permission is hereby granted. However, you are required to liaise with the Ministry  
of Primary and Secondary education, who is responsible for the employees which  
you want to involve in your research. You should ensure that your research work  
does not disrupt the normal operations of the Ministry. Where students are involved,  
parental consent is required.

You are also required to provide a copy of your final report to the Secretary for  
Primary and Secondary Education.

DR S.J Utete-Masango  
**SECRETARY FOR PRIMARY AND SECONDARY EDUCATION**



## **ANNEXURE B5: INTERVIEW GUIDE RESEARCH OBJECTIVE 2**

UNIVERSITY OF THE  
FREE STATE  
UNIVERSITEIT VAN DIE  
VRYSTAAT  
YUNIVESITHI YA  
FREISTATA



### **SEMI STRUCTURED INTERVIEW GUIDE 2**

#### **A framework for the development of entrepreneurship within the secondary school education system in Zimbabwe**

##### **Introduction**

I want to thank you for taking the time to meet with me today. My name is Tirivangani Jona Kondo a postgraduate student studying towards a PhD in Business Administration at the University of Free State. I would like to talk to you about the status of entrepreneurship, constraints and challenges to entrepreneurship training in secondary schools in Zimbabwe. The semi-structured interview will initially require up to 1 hour, with possible similar follow-up time. The interview will be tape-recorded to facilitate for collection of information and later transcribed for analysis. I will be taking some notes during the session and would urge you to speak up so that we don't miss your comments. All information that will be provided will be considered completely confidential. The participant's name will not appear in any of the reports resulting from this research, however, with the participants, permission anonymous quotations may be used.

Remember, you don't have to talk about anything you don't want to, and you may end the interview at any time. Do you have any questions about what I have just explained? Are you willing to participate in this interview?

Main Question	Probes	Clarifying Questions (To be used as needed)
Q.1. Do you think that entrepreneurship should be taught to secondary school students in Zimbabwe?		Can you expand a little on this?
Q.2 How are secondary schools in Zimbabwe preparing school leavers for a situation where formal wage employment may not exist?		<ul style="list-style-type: none"> <li>• Can you tell me anything else?</li> </ul>
Q.3. Do you think there exists a mismatch between what industry in Zimbabwe expects from school leavers and the students who are being produced as the end product in schools?		<ul style="list-style-type: none"> <li>• Can you give me some examples?</li> </ul>
Q.4. What is our current secondary education curriculum doing to familiarize with and prepare students to work effectively in small firms, either as employers or employees?		
Q.5. What policy exists within the Ministry of Primary and Secondary Education in Zimbabwe on the teaching and learning of entrepreneurship in the secondary school education system?		
Q.6. Which factors support and inhibit the integration of entrepreneurship into the Zimbabwean secondary school education system?		
Q.7. How important is entrepreneurship to the overall economic development of Zimbabwe?		

#### CLOSING SECTION

Are there any responses you would like to elaborate upon or questions that you would like to ask me about the things we discussed in this interview?

Thank you very much for your time

## ANNEXURE B6: CONFEDERATION OF ZIMBABWE INDUSTRIES CONSENT LETTER



**CZI**  
CONFEDERATION OF  
ZIMBABWE INDUSTRIES

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31 Josiah Chinamano Avenue P.O. Box 3794 Harare, Zimbabwe  
Tel: 263-04-251489-98, Fax: 263-04-252424 Email: info@mail.czi.co.zw  
E-mail: marketing@mail.czi.co.zw

*30 January 2017*

Dear Mr Kondo

**RE: APPLICATION TO CONDUCT A RESEARCH**

We acknowledge receipt of your application to conduct a study with registered members of CZI. The Confederation would like to express its great appreciation for such a study that will hopefully contribute to the growth and development of the economy.

The Confederation supports your endeavour and will appreciate if you can then share your findings with us.

With kind regards and God's blessings.

  
CM Sileya  
**CHIEF EXECUTIVE OFFICER**



## ANNEXURE B7: QUESTIONNAIRE



### CONFEDERATION OF ZIMBABWE INDUSTRY MEMBER QUESTIONNAIRE

Questionnaire number		
Name of Business		

**Dear Participant**

I am Tirivangani Jona Kondo and I am doing a PhD in Business Administration at the University of Free State. I am currently conducting a research entitled:

#### **A FRAMEWORK FOR DEVELOPMENT OF ENTREPRENEURSHIP WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE**

CZI is the apex organisation for Industry in Zimbabwe hence you have been selected to take part in this study that collects information about entrepreneurship skills that are required particularly by school leavers to enter self-employment. Your role will be helpful in bringing the gap between industry needs and education's leading to the formulation of a framework for the development of entrepreneurship in the secondary education system in Zimbabwe. The information obtained in this questionnaire will be confidential and will be used for the purposes of this study only.

## SECTION 1: DEMOGRAPHIC INFORMATION OF RESPONDENT

Here are some questions to seek socio-demographic information of the respondent.

1. Your age:

☐ 18 - 24    ☐ 25 - 45    ☐ < 65

2. Your gender:

☐ Male    ☐ Female

3. Your educational level?

☐ None    ☐ Primary level    ☐ Lower secondary    ☐ level Upper secondary  
☐ Diploma    ☐ Bachelor's degree    ☐ Master's degree    ☐ PhD degree  
☐ Other (Please specify):

4. Have you had any previous work experience?

☐ Yes    ☐ No

5. If yes, for how long did you work before you started up at your current establishment?

☐ < 2 years    ☐ 2 - 5 years    ☐ 6 - 10 years    ☐ 11 - 20 years  
☐ >20 years

6. Was your previous work experience relevant to your current establishment?

☐ Yes    ☐ No

## SECTION 2: BUSINESS INFORMATION

*Please provide answers to the following questions*

<b>7. Please indicate your level of subscription with CZI</b>									
Ordinary		Bronze		Silver		Gold		Platinum	
<b>8. Is your establishment.....</b>									
Association		Municipality		Trust		Sole Proprietorship			
Non-Profit		Corporation		Limited Partnership		General Partnership			
<b>9. Which sector/s do you operate from</b>									
Agriculture		Commerce		Mining		Manufacturing			
Retail		ICT & Telecommunications		Tourism		Transport			
Education		Service		Construction		Other			
<b>10. How long has your business been in operation</b>									
<b>11. Which province do you operate your business from</b>									
Mashonaland		Midlands		Matebeleland		Midlands			
<b>12. Have you operated a business in another province before? If yes please list the provinces below</b>									
Mashonaland		Midlands		Matebeleland		Midlands			
<b>13. Please specify the number of school leavers that you take into full-time employment in accordance with their age</b>									
16-18		19-21		22-24		25-27		28 & Above	
<b>14. Please specify the number of school leavers you have accepted as per their minimum qualification</b>									
None		Grade 7		O Level		A Level			
Vocational Certificate		Diploma		Degree		Other			
<b>15. For the school leavers indicated above, please indicate their form of employment within your organization</b>									
Permanent		Contract		Casual		Internship		Part-Time	
<b>16. Which languages are the school leavers you employ proficient in?</b>									
English		Shona		Ndebele		Other			
<b>17. Please specify the number of self-employed individuals that your business interacts with in accordance with their industry of profession</b>									



Agriculture		Commerce		Mining		Manufacturing	
Retail		ICT & Telecommunications		Tourism		Transport	
Education		Service		Construction		Other	
<b>18. If possible please specify the level competence of education of these individuals</b>							
None		Grade 7		O Level		A Level	
Vocational Certificate		Diploma		Degree		Other	
<b>19. Please indicate the number of school leavers you have accepted from private and public secondary schools</b>							
Private				Public			

### SECTION 3: THE MOTIVATORS OF SELF EMPLOYMENT

This section seeks your views on the what motivates school leavers to self-employment.

#### 20. How would you describe what motivates school leavers to self-employment?

*(Please indicate your opinion regarding each statement by ticking the appropriate box)*

**SA = Strongly agree; A = Agree; D = Disagree; SD = Strongly disagree; NO = No opinion**

STATEMENT	SD	D	N	A	SA
Entrepreneurship education plays a significant role in promoting self-employment amongst school leavers					
The Zimbabwean secondary school education curriculum places a strong emphasis on knowledge and understanding of business to all students					
Social and cultural factors (often acquired through family and social networks) can predispose school leavers to self-employment					
The current Zimbabwe secondary school education curriculum promotes self-employment					
Society in general in Zimbabwe encourage school leavers to start their own business					
School leavers feel pushed into self-employment by lack of suitable jobs in paid employment, leading to self-employment as an economic necessity.					

The emergent economic and employment challenges in Zimbabwe can be solved by fostering entrepreneurship skills amongst school leavers					
Life's current challenges and an uncertain future regarding employment is a major driver of self-employment amongst school leavers					
Education is a strong motivator regarding career choice for school leavers in Zimbabwe					
Learners need enterprising attitudes and skills to survive and succeed in the world of today.					

#### SECTION 4: THE RELATIONSHIP BETWEEN INDUSTRY NEEDS & THE EDUCATION

This section seeks your views on the relationship between industry needs and the education system provided for all secondary school students in Zimbabwe

21. With reference to the current Zimbabwean education system, to what extent has the education system provided school leavers with an opportunity for self-employment

*Please respond to the following statements (Tick one box only for each statement).*

☐ YES    ☐ NO    ☐ I DO NOT KNOW

STATEMENT	YES	NO	IDNK
University education is no longer a passport to secure employment for graduates. This requires school leavers to consider self-employment as a viable career option.			
Regulatory laws, regulations, government policies and education administrative procedures facilitate business start-up as a type of employment for school leavers in Zimbabwe			
There is an accelerating mismatch between what is being offered as education in secondary schools in Zimbabwe and the job requirements			
Zimbabwean secondary school education system teaches students to think uniformly and not creatively			
A very large percentage of students are leaving secondary schools ill-prepared for the 21st-century workplace			
Secondary education in Zimbabwe places a high emphasis on academic attainment leaving little room for the development of self-employment			

Entrepreneurship should be offered to all students, not only to those studying business in secondary schools		
The education system in Zimbabwe has no response to secondary school students who fail to attain 5 O Level passes at O Level.		
Entrepreneurship should be focused on encouraging secondary school students to start and run their own businesses in secondary schools in Zimbabwe		

**22. Is Zimbabwe's economic "environment" a driver or barrier to entrepreneurship?**

☐

YES

☐

NO

If yes, please continue to answer question 23.

**23. Why do you think this is so?**

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**SECTION 5: SKILLS REQUIREMENT & ECONOMIC DEVELOPMENT**

This section is about skills that some studies in other countries have proven that if inculcated in the teaching of entrepreneurship to secondary school students are influential on the success of businesses.

**24. Listed below are some skills that may contribute to your business's success.**

**How important do you believe these skills are to industry in Zimbabwe?**

*(Please indicate your opinion regarding each statement by ticking the appropriate box)*

(NVI = Not Very Important; NI = Not Important I = Important; VI = Very Important; NO = No Opinion)

POSSIBLE SKILLS	NVI	NI	I	VI	NO
Thinking and Behaviour (mannerism)					
Creativity					
Innovation					
Risk-Taking					
Risk Management					
Problem Solving					

Time Management					
Independent decision Making					
Flexibility					
Enterprising Attitudes and Skills					
Scan the environment to look for opportunities					

## SECTION 6: CONDITIONS NECESSARY FOR ENTREPRENEURSHIP

25. With reference to your business, please evaluate the conditions necessary for entrepreneurship development in the secondary school's education system in Zimbabwe that promote self-employment as a career choice for students after completion.

*(Please select the appropriate answer by ticking the appropriate box)*

(VN = Very necessary; N = Necessary; NVN = Not very necessary; I = Insignificant; NO = No opinion)

POSSIBLE CONDITIONS	VN	N	NVN	I	NO
Reducing standardization, fostering innovation, broadening school's knowledge base on entrepreneurship					
Appropriate accountability and metrics for 21st-century learning in secondary schools					
Promoting learning leadership, trust and learner agency					
Widespread collaborative expert professionalism benchmarking best practices experienced from countries that have had success through entrepreneurship development in secondary schools					
Ubiquitous professional learning of teaching staff					
Connectivity and extensive digital infrastructure					
Flourishing cultures of networking and partnership					
Powerful knowledge systems and cultures of evaluation					
Provide a compelling vision of the future					
Set ambitious goals that force innovation:					
Government and private sector to combine resources and invest in and empower secondary schools that offer entrepreneurship as a subject to all its secondary school students					
Reward successes (and productive failure)					
A well-designed entrepreneurship strategy for secondary schools in Zimbabwe.					
Increased emphasis on application-based learning in secondary schools					

## SECTION 7: INDUSTRY LEVEL OF INVOLVEMENT IN

26. As an industry, to what extent is your involvement in promoting entrepreneurship in secondary schools to curb against the rapid rise of unemployment as well as promoting self-employment?

*(Please select the appropriate answer by ticking the appropriate box)*

(VI = Very Involved; I = Involved; NNI= Not necessarily involved =NNI; NI= Not involved; NO = No opinion)

AREAS OF INVOLVMENT	VI	I	NNI	NI	NO
Creating teams within the secondary school focused on the impact of the entrepreneurship to people's lives in general.					
Entrepreneurship programs, including advisory and outreach services to schools					
Encouraging young students to enter into businesses by providing start-up facilities and incentives such as start-up grants, business incubating centres, networks of angel investors, venture capitalists, and equity funds.					
Promoting entrepreneurship policy implementation by the government on entrepreneurship initiatives in schools					
Support for Entrepreneurship learning in the education system in Zimbabwe					
Business academic collaborative forums with schools					
Increased emphasis on application-based learning in secondary schools					
Creating opportunities for students to participate in social entrepreneurship contests					
Foster global exchange programs with other institutions that promote entrepreneurship in secondary schools					

**Thank you for your time!**

**I appreciate your co-operation!**

## ANNEXURE B8: QUANTITATIVE SAMPLE SIZE

EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT  
1970, 30, 607-610.

### DETERMINING SAMPLE SIZE FOR RESEARCH ACTIVITIES

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The ever increasing demand for research has created a need for an efficient method of determining the sample size needed to be representative of a given population. In the article "Small Sample Techniques," the research division of the National Education Association has published a formula for determining sample size. Regrettably a table has not been available for ready, easy reference which could have been constructed using the following formula.

$$s = X^2 NP(1-P) \div d^2(N-1) + X^2 P(1-P).$$

$s$  = required sample size.

$X^2$  = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)

$$1.96 \times 1.96 = 3.8416$$

$N$  = the population size.

$P$  = the population proportion (assumed to be .50 since this would provide the maximum sample size).

$d$  = the degree of accuracy expressed as a proportion (.05).

No calculations are needed to use Table 1. For example, one may wish to know the sample size required to be representative of the opinions of 9000 high school teachers relative to merit pay increases. To obtain the required sample size enter Table 1 at  $N = 9000$ . The sample size representative of the teachers in this example is 368. Table 1 is applicable to any defined population.

The relationship between sample size and total population is illustrated in Figure 1. It should be noted that as the population increases the sample size increases at a diminishing rate and remains relatively constant at slightly more than 380 cases.

### REFERENCE

Small-Sample Techniques. *The NEA Research Bulletin*, Vol. 38 (December, 1960), p. 99.

TABLE 1  
*Table for Determining Sample Size from a Given Population*

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size.  
*S* is sample size.



## FORMULAE FOR DETERMINING NEEDED SAMPLE SIZES

**POPULATION SIZE UNKNOWN:**

$$\text{SAMPLE SIZE} = \frac{\left( \frac{\text{RANGE}}{2} \right)^2}{\left( \frac{\text{ACCURACY LEVEL}}{\text{CONFIDENCE LEVEL}} \right)^2}$$

Confidence Levels:

	$\alpha$	$\alpha/2$
.10 level =	1.28	1.64
.05 level =	1.64	1.96
.01 level =	2.33	2.58
.001 level =	3.09	3.29

Accuracy Levels:

Range X Desired Level  
of Accuracy  
(expressed as a  
proportion)

**POPULATION SIZE KNOWN:**

$$\text{SIZE} = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

$X^2$  = table value of Chi-Square @  $d.f. = 1$  for desired confidence level  
 .10 = 2.71    .05 = 3.84    .01 = 6.64    .001 = 10.83

$N$  = population size

$P$  = population proportion (assumed to be .50)

$d$  = degree of accuracy (expressed as a proportion)



**ANNEXURE B9: CODE BOOK****Code Book**

	<b>Label</b>	<b>Value</b>
<b>Gender</b>	Male	1
	Female	2
<b>Age Groups</b>	20-30yrs	1
	31-40yrs	2
	41-50yrs	3
	51yrs and above	4
<b>Level of Education</b>	Secondary	1
	Diploma	2
	Undergraduate Degree	3
	Master's degree	4
<b>Suburb</b>	Low Density	1
	Medium Density	2
	High Density	3
<b>Likert Scale</b>	SD	1
	D	2
	N	3
	A	4
	SA	5

## **ANNEXURE B10: CONFIRMATION OF LANGUAGE EDITING**

**MARGARET LINSTRÖM**

**LANGUAGE PRACTITIONER**

Honours degree (Language Practice), Master's degree (Communication Science) (UFS)

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13 December 2020

### **CONFIRMATION OF EDITING**

I, Margaret Linström, hereby confirm that I language edited the doctoral thesis entitled A FRAMEWORK FOR DEVELOPMENT OF ENTREPRENEURSHIP WITHIN THE SECONDARY SCHOOL EDUCATION SYSTEM IN ZIMBABWE by Tirivangani Jona Kondo, student number 2015211143.

The editing was done electronically, using Track Changes, to enable the candidate to accept or reject the suggested changes.

## **ANNEXURE B11: STATISTICIAN CONFIRMATION LETTER**

14 December 2020

To Whom It May Concern

**REF: THESIS – TIRIVANGANI JONA KONDO STUDENT NUMBER 201521143**

I am a holder of a BSc Honours Degree in Statistics from the University of Zimbabwe. I established the Judicial Service Commission statistics system and has vast experience in data collection, cleaning, analysis and presentation. I now do hereby confirm that I analysed the data involved in the study of the above-mentioned student and assisted with the interpretations of results. However, any opinion, finding or recommendations contained in this document are those of the author and I do not accept responsibility for statistical correctness of the data reported.

Yours Sincerely

Allen Tsenesa