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# **DETERMINING THE INFLUENCE OF ENTREPRENEURIAL INTERVENTIONS ON THE ENTREPRENEURIAL INTENTIONS OF THE YOUTH IN SOUTH AFRICA**

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**DOCTOR OF BUSINESS ADMINISTRATION**

**DURHAM UNIVERSITY BUSINESS SCHOOL**

**2023**



**STEVEN ZWANE**

## **DEDICATION**

This thesis is dedicated to the young people of South Africa who come from disadvantaged communities. It is my hope that the findings of this research will contribute to a better understanding of the impact of entrepreneurial intervention on their entrepreneurial intentions.

To my children – Thando, Siyabonga, Olwethu, Sibani, and Manqoba – I dedicate this thesis to you as a symbol of my love and encouragement. I hope this work inspires you to reach the highest levels in your lives, careers, and dreams. You are my motivation, and I am grateful for the joy and blessings you bring into my life.

I would also like to express my gratitude to Junior Achievement South Africa (JASA) and Youth Leadership and Entrepreneurship Development (YLED) for their support and collaboration on this research. Your dedication to empowering young people through entrepreneurship is truly inspiring.

Finally, I would like to thank my family and friends, who have supported me throughout my academic journey. Your encouragement and belief in me have been a constant source of motivation. Also, to my supervisors and mentors, thank you for your unwavering support and for challenging me to become a better researcher.

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Finally, I would like to express my deep gratitude to my family and friends for their unwavering love, encouragement, and support throughout my academic journey. Their firm belief in me has been a source of strength and inspiration, and I am forever grateful for their presence in my life.

## **ABSTRACT**

This study aimed to investigate the impact of entrepreneurial interventions (EIs) on the entrepreneurial intentions of disadvantaged youths in South Africa. A survey was conducted among young people who participated in an EIs between 2008 and 2019. The study embraced a survey design that meticulously probed entrepreneurial intentions, personality traits, and skills development.

The results of the analysis indicate that entrepreneurial personality and entrepreneurial skills significantly influence entrepreneurial intention among disadvantaged youths. Attitude and subjective norms were also strongly related to entrepreneurial intention. Additionally, skills related to business management, finance, and marketing unveiled their substantial impact on fostering entrepreneurial intentions.

The study's outcomes extend beyond theoretical associations, providing actionable insights for policymakers and program developers. By emphasising the role of specific skills and psychological factors, our research advocates for the design of more targeted and impactful EIs.

This research not only contributes to academic discourse but also furnishes practical guidance for shaping interventions that catalyse entrepreneurial aspirations among disadvantaged youth. The nuanced dynamics uncovered in this study pave the way for a more equitable and prosperous society in South Africa.

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## LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
ASN	Attitude and subjective norms
ATE	Attitudes toward entrepreneurship
CBM	Comprehensive business management skills
EE	Entrepreneurship education
EEM	Entrepreneurial event model
EI	Entrepreneurial intervention
EP	Entrepreneurial personality
ES	Entrepreneurial skills
FMS	Financial and marketing skills
GEM	Global Entrepreneurship Monitor
GLM	Generalised linear model
HEI	Higher education institution
HRMS	Human resource management skills
IC	Intellectual capital
JASA	Junior Achievement South Africa
KMO	Kaiser-Meyer-Olkin
LoC	Locus of control
LSM	Life Skills and Mentorship
MEP	Mini Enterprise Programme
MS	Microsoft
NPO	Non-profit organisation
OECD	Organization for Economic Co-operation and Development
PBC	Perceived behavioural control
RTP	Risk-taking propensity
SIS	Social and interpersonal skills
SMS	Short message service
SN	Subjective norms
Stats SA	Statistics South Africa
SUS	Start-up skills
TPB	Theory of planned behaviour
YLED	Youth Leadership and Entrepreneurship Development

# CHAPTER 1: INTRODUCTION

## 1.1 INTRODUCTION

Entrepreneurship is defined as a vehicle for economic growth, success, and prosperity. Herrington et al. (2009) point out that an entrepreneur shifts economic resources out of an area of low productivity into an area of higher productivity and greater yield. Furthermore, according to Sathiabama (2010), entrepreneurship is a dynamic process of creating wealth by individuals or groups of individuals. Rwigema and Venter (2004, p. 6) define entrepreneurship as the process of conceptualising, organising, launching, and, through innovation, nurturing a business opportunity into a potentially high-growth venture in a complex and unstable environment. One can therefore state that an entrepreneur is one who organises and assumes the risk of a business enterprise.

According to Radebe (2019), youths in South Africa are far less likely to start their own businesses compared to those from other countries. The low entrepreneurial activity among youths is one of the primary reasons for the low overall rate of entrepreneurial activity in South Africa. Entrepreneurship education (EE) might increase entrepreneurial activity in South Africa. This is because entrepreneurship has not only been perceived as a career alternative to students (Baluku et al., 2018; Nabi et al., 2008) but also as a pathway to the attainment of desirable economic growth and development (Gelaidan & Abdullateef, 2017; Nowiński & Haddoud, 2019; Gerba, 2012).

Furthermore, previous research indicates that EE occupies a central role in influencing students (e.g., Bae et al., 2014; Gelaidan & Abdullateef, 2017; Iglesias-Sánchez et al., 2016). Entrepreneurship training has thus been incorporated into strategic plans and educational curricula to stimulate students' entrepreneurial intentions (Afolabi et al., 2017; Hattab, 2014; Nabi & Holden, 2008). This has been done based on the claim that entrepreneurial knowledge and skills can be taught and learned (Bahadur & Shah, 2015). EE's main goal is to illustrate a business direction as a career option to students (Patricia & Silangen, 2016).

However, this has only been done for college or higher education students. This research aims to address the same need for high school students. The stimulation of students' entrepreneurial intentions is an ideal solution to the graduate unemployment crisis, especially in the developing world (Baluku et al., 2018; Bandura et al., 2003). The premise

is that the resultant outcome of entrepreneurial intentions is business start-ups that create employment opportunities for graduates (Mijoč et al., 2016; Nabi et al., 2017). The researcher thus proposes the same solution for high school students as previous research indicates that EE occupies a central role in influencing students to engage in entrepreneurship (e.g., Bae et al., 2014; Gelaidan & Abdullateef, 2017; Iglesias-Sánchez et al., 2016).

This research proposes that youths' entrepreneurial personality (EP), entrepreneurial skills (ES), and entrepreneurial interventions (EIs) influence entrepreneurial intention, while intellectual capital (IC) moderates the relationship between the independent variables (EP, ES, and EI) and the dependent variable (entrepreneurial intention).

This research aims to determine the influence of EIs on the entrepreneurial intentions of the youth in South Africa.

This provides an overview of the study by describing the research background and problem. Furthermore, the chapter also briefly introduces the theoretical framework that underpins the study. It then discusses the research objectives. It also outlines the research questions, which is followed by an explanation of the study's scope and justification. Thereafter, the research methodology used in the research is briefly clarified, along with its significance.

## **1.2 RESEARCH BACKGROUND**

### **1.2.1 Youth development in South Africa**

Some researchers suggest that there is no one-size-fits-all approach to positive youth development. Various intervention programmes such as youth empowerment programmes are from the perspectives of the economy and social wellbeing; such innovative entrepreneurship programmes may provide an avenue to create and support regenerating youth development (Kasim et al., 2014). Furthermore, young people also have specific needs and particular potential; however, their critical contributions to economic and social progress are underestimated. Researchers around the globe are also looking for frameworks of potential efforts and strategies to boost employment and job creation for young people, as entrepreneurship is increasingly accepted as an important means and a valuable additional strategy to create jobs and improve the livelihoods and economic independence of young people (Awogbenle & Iwuamadi, 2010).

In South Africa, youths are defined as those within the 14 to 35 years age range as mandated by the National Youth Commission Act of 1996 and the National Youth Policy of 2009. The Quarterly Labour Force Statistics for Quarter Three in 2021 depict the worst unemployment numbers in the history of the survey: 7.4 million unemployed youths aged 15 to 24 (77.4%, expanded definition) are no longer just a youth unemployment crisis but an existential crisis for the country. Furthermore, considering the entire working population, nearly half (expanded definition 46.6%, 12.5 million) of South Africans are unemployed (official rate 34.9%). There were 660 000 fewer employed South Africans from Quarter Two to Quarter Three of 2021.

The youth is an inherent part of any community and an important part of any country's economic development process. If the process of youth transitioning to maturity is slowed down by a lack of human development, one effect is the transmission of poverty and risky behaviours from generation to generation. Youths in marginalised groups will also experience widespread feelings of inequity because they are typically underdeveloped and originate from low-income families with a poor family upbringing, as well as being ecologically unsupportive and lacking in social skills. Entrepreneurship could play a role in mitigating the challenges faced by youths in different countries, including South Africa.

South African youths therefore need to upgrade their entrepreneurship skills to assume entrepreneurship in the economy, while also alleviating poverty.

### **1.2.2 Youth entrepreneurship development**

Entrepreneurship offers goods and services to the community and provides job opportunities (Reynolds et al., 2000). Entrepreneurship is essential for solving economic problems such as unemployment and creating employment opportunities, stabilising society, and increasing industrial competition and economic development. Entrepreneurship has therefore received a great deal of attention from governments and policymakers to learn how to encourage and guide a new workforce; for example, undergraduate students moving towards entrepreneurial activities to solve economic problems and their negative consequences (Merrill et al., 2008; Kim, 2018).

Youth entrepreneurship development can play a positive role in addressing the current unemployment challenges faced by South Africa. Fatoki and Chindoga (2011) indicate that entrepreneurship activity among the youth in South Africa is still very low and their intention

to create business ventures is very weak compared to youths from other countries. Furthermore, these authors also emphasise that the low entrepreneurial activity among the youth is the primary reason for the overall low rate of entrepreneurial activity in South Africa.

The South African government has developed policies and strategies to create new business opportunities for the youth. Policies such as the Youth Employment Accord include interventions such as “mentorship and coaching; youth business incubation; business infrastructure support; linkages to procurement opportunities; youth entrepreneurship awards; youth entrepreneurship promotion and awareness; youth special projects and sector-specific enterprise creation; national youth service programme and the youth entrepreneurship collateral fund” (Department of Small Business Development, 2013). Through the Youth Enterprise Development Strategy, the South African government sought to develop a strategy aimed at promoting and accelerating the development and growth of entrepreneurship and youth-owned and youth-managed enterprises. In addition, the Youth Enterprise Development Strategy encourages the mainstreaming of youth enterprise development in existing core programmes. It also proposes the development of unique support programmes aimed at promoting the development of youth entrepreneurship and youth-owned and -managed enterprises to achieve high impact.

The government believes that enhancing youth participation through entrepreneurship will not only help them build businesses but will also contribute meaningfully to the development of the country. South Africa’s Total Early-Stage Entrepreneurial Activity index, which currently stands at 8.9% for the youth, contributes a mere 10%, which represents 0.9% of the total index. There is thus no doubt that accelerating entrepreneurship among young people will have a positive impact not only on the social plane of bringing equity into the economy, but also by raising the levels of the overall economic indicators of South Africa (Department of Small Business Development, 2013).

This research aims to develop an integrative conceptual framework that seeks to determine the relationship between different elements and ES, prompting the main variable, namely entrepreneurial intention. A model will be developed, which will create linkages between EP, ES, EI, and IC (moderating variable), with the output variable being entrepreneurial intention.

The study proposes that EIs can influence young people (primarily aged 16 to 21) and thus create the much-needed ES that lead to continual entrepreneurial intention. The goal of this study was to determine the impact of EIs on young people (aged 18 to 34) and the ES that can help them to make informed decisions about pursuing entrepreneurship as a career and life choice.

Furthermore, this research assumes that entrepreneurship can be taught. The research also assumes that entrepreneurship can be integrated into the education system, particularly high schools. The next section therefore discusses EE as means of EI targeted at the South African youth.

### **1.2.3 Entrepreneurship education (EE) as an entrepreneurial intervention (EI)**

EE cultivates innovative talents, which are an important driving force for future development (Wei et al., 2019). Furthermore, EE is an important way for entrepreneurs to acquire resources, enhance their innovative ability and innovative personality, and build multi-level learning channels for entrepreneurs by integrating various knowledge and value systems from knowledge learning to skills improvement. EE includes general ability development and the improvement of professional ability. Furthermore, entrepreneurial competence, which is important for success, mainly refers to the ability to identify opportunities and develop the necessary resources and capital to take advantage of opportunities (Arthurs & Busenitz, 2006; Kettunen et al., 2013).

EE is concerned with fostering creative skills that can be applied in practice, education, and environments that support innovation (Binks et al., 2006; Gundry et al., 2014). Student entrepreneurs use multi-party interaction to achieve knowledge iteration in the learning network; the innovation process is the result of interactions among the environment, the organisation, and entrepreneurs (Anderson et al., 2014).

Individuals tend to pursue their goals if they consider that their own abilities and actions can achieve the desired results (Bandura et al., 2003). EE helps to improve their cognition, constantly adjust their thoughts and actions, and make their entrepreneurship more directional, coherent, and meaningful.

Research has been conducted in South Africa on the benefits of EE, most of which has focused on university students and graduates. The motivation of the research stemmed from the belief that the youth unemployment crisis will not be solved by formal employment, and

that EE needs to be promoted at the school level to address skills mismatches between education and employment creation (Bux & Van Vuuren, 2019). The results showed a positive correlation between the items that comprised self-efficacy, which can be developed through EE.

Researchers have made a practical recommendation pertinent to the type of EE that ought to be introduced (Bux & Van Vuuren, 2019). The majority of studies that advocate EE as a solution to youth unemployment with proven evidence of impact on intentions tended to be based on young people in graduate schools. This research proposes that the model can be adopted in high schools.

#### **1.2.4 The importance of Entrepreneurial Intervention in South Africa**

Africa has a massive population of young people. More than half of Africa's population is younger than 21 years and two-thirds are younger than 30 years. In all African countries, the median age of the population is 20 years or less; that is, half or more of the population is under 21 years of age.

In addition, Statistics South Africa (Stats SA) reports that, according to the mid-year estimates for 2019, the youth (aged 18 to 34) constitute almost a third of the population (17.84 million) in South Africa, with 9.04 million males and 8.80 million females. Almost 30% of the youth (5.10 million or 28.6%) reside in Gauteng, with 3.47 million in KwaZulu-Natal (19.4%), which make up almost half of all the youths in South Africa. The Free State (4.7%) and the Northern Cape (2%) have the lowest proportions of youths. Furthermore, approximately 13% of the youths aged 20 to 34 are graduates (Maluleke, 2019).

With all this information, the factor that comes to mind when analysing South Africa's worsening unemployment crisis is the long-term instability of the socio-economic and political dimensions that cause the problem to be imposed on the economy, country, and labour force. The unemployment rate is a mirror image of the state of a country's economy. In this context, employment is the lifeline of any economy. "Human development will be grossly undermined and impaired without employment" (Nigerian National Planning Commission, 2004, p. 100).

In seeking to address the issue, the South African government has endeavoured to promote entrepreneurship as a means of addressing the issue of youth unemployment (Bux & Van Vuuren, 2019).

In addition, the National Treasury (2011) acknowledges the youth unemployment issue and suggests that reform of the situation requires short- and long-term approaches. Some of these approaches would include labour demand and the provision of education that addresses issues such as quality education and scarce skills in the country. The National Treasury (2011) concluded that (relevant) skills deficiencies contributed to that gap and that the provision of quality education and skills development should become a priority for the government.

Urban (2016) suggests that entrepreneurship is one of the most important tools to solve the unemployment problem in South Africa. Urban (2016) states that a critical mass of entrepreneurs is required in an economy to make a difference to issues of unemployment. He also states that a good education is required to drive the goal of developing a significant enough quantity of entrepreneurs to begin to address the issues.

### **1.3 RESEARCH PROBLEM**

Creswell (1994) points out that a research problem can be defined as a problem in literature, theory, or practice that leads to research needs. Research questions must therefore be clearly defined and expressed to ensure that the results obtained are relevant. The problem is that widespread poverty does not provide a suitable platform for the development of children, and the poor outcomes of schooling in South Africa suggest that the growing shortfalls cannot be overcome by the current schooling system in the country (Biersteker & Dawes, 2008, p. 185). Herrington et al. (2010, p. 24) agree that many school-leavers do not have sufficient literacy, numeracy, and livelihood skills to participate meaningfully in the South African economy.

This research sought to determine the influence of EIs on the entrepreneurial intentions of youths in South Africa. To do so, the researcher conducted a full EI analysis and used the results to propose an appropriate framework. The researcher sought to evaluate the ES, EP, EI, and IC that can help students make informed decisions regarding whether they would pursue entrepreneurship as a career and life choice; thus reducing poverty and providing a suitable platform for their development.

## **1.4 RESEARCH OBJECTIVES**

The main objective of this research was to determine the influence of EIs on South African youths and the ES that can help them make informed decisions regarding whether they would pursue entrepreneurship as a career and life choice.

### **1.4.1 Secondary objectives**

This study proposes that EIs can influence students and create the much-needed ES that can lead to continual entrepreneurial intention. The secondary objectives of this research are as follows:

- To determine the ES capacity of youths in South Africa.
- To determine the EP of youths in South Africa.
- To determine if IC moderates the relationship between EP and entrepreneurial intention.
- To determine if IC moderates the relationship between ES and entrepreneurial intention.
- To determine if IC moderates the relationship between EI and entrepreneurial intention.
- To determine if EP influences the entrepreneurial intention of youths in South Africa.
- To determine if ES influence the entrepreneurial intention of youths in South Africa.
- To determine if EI influences the entrepreneurial intention of youths in South Africa.
- To determine the entrepreneurial intention of youths in South Africa.

## **1.5 RESEARCH QUESTIONS**

This section briefly discusses the study's research questions and the role of the research questions in measuring the impact of EI and determining the relationship between EI and entrepreneurial intentions among the youths of South Africa towards building a model that will contribute to an increase in young people being entrepreneurial, so as to address youth unemployment challenges and contribute to lifting people out of poverty.

The relevant variable is incorporated into the research questions to ensure that the research remains relevant to the research field. The research questions of this study are presented below. The main research question of this study is:

- RQ1: What is the influence of EIs on the entrepreneurial intention of the youth?

The sub-research questions of the study are:

- RQ2: What is the EP capacity of the youth?
- RQ3: What is the ES capacity of the youth?
- RQ4: What is the entrepreneurial intention capacity of the youth?
- RQ5: How does IC influence ES?
- RQ6: How does IC influence EP?
- RQ7: How does IC influence entrepreneurial intention?
- RQ8: How does EI influence the youth?

The research questions aim to fully understand youth entrepreneurial intention to pursue entrepreneurship as a career and life choice. One might think that South African youths' ES, EP, and IC may have an influence on entrepreneurial intention, which in turn might lead to the youth pursuing entrepreneurship, being entrepreneurial, and choosing entrepreneurship as a career path.

## **1.6 JUSTIFICATION OF THE STUDY**

Freeman and Wise (1982) identified several dimensions of the youth unemployment problem that distinguish it from the general problem of unemployment. Youth employment is increasingly important on the national and global development agenda. The youth employment challenge has its own dimensions and is faced by many countries around the world, regardless of the stage of their socio-economic development. The underlying problem is that many young people enter the labour market each year, but the lack of employment opportunities, especially in poor economies and post-conflict countries, and the low quality of education and training have no adequate links to the labour market.

Debates continue on whether entrepreneurship can be taught. The literature suggests that EE does lead to an increase in the youth's desire of becoming self-employed individuals in the future (Leitch et al., 2012). Entrepreneurship can be seen as a means to assist the country with unemployment and poverty. Authors suggest that entrepreneurship can be taught, and

that EE increases the chances of the success of start-ups (Metcalf, 2013). EE is being widely implemented in both primary and secondary schools and higher education institutions (HEIs) to impart the skills and knowledge required for students of all ages to start their own ventures.

The main motive for conducting this research is the lack of a broad model relating to the impact of EIs on the entrepreneurial intention of the youth. This study proposes that EIs can influence the youth and thus create the much-needed ES that can lead to continual entrepreneurial intention.

### **1.7 PROCESS FOLLOWED IN CONDUCTING THE LITERATURE REVIEW**

The literature review followed a meticulous and systematic process, defining clear research questions and objectives to guide the search strategy. Carefully curated keywords, including "youth entrepreneurship", entrepreneurship education" and "entrepreneurial interventions," were used in searches across reputable databases such as JSTOR, and Google Scholar, ensuring a diverse exploration of academic and grey literature. The application of Boolean operators refined search queries, and strict inclusion/exclusion criteria were set to filter studies based on relevance and quality. A specific timeframe (2008 to 2019) concentrated on contemporary literature, with a focus on peer-reviewed journals maintaining academic rigor. An interdisciplinary approach considered relevant literature from adjacent disciplines. Citation tracking and snowballing techniques identified seminal works, minimizing bias, enhancing reproducibility, and establishing a robust foundation for subsequent chapters, aligning the study within a well-informed scholarly context.

### **1.8 CONCLUSION**

This chapter provided a broad overview related to this research and the rationale for conducting such a study. Background information about the research topic was presented, which led to the identification of problem statements in the literature regarding EP, EI, ES, and IC having an impact on entrepreneurial intentions. Furthermore, the chapter presented the objectives and contributions of the study and briefly described its research methodology and the research framework.

This chapter also presented brief literature regarding the research variables and their characteristics, which led to the selection of the research methodology.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This research is interested in advocating for EE in South African high schools. The research examines the applicability of EE in high schools through the lens of EIs that result in higher entrepreneurial intentions among young people in high school.

### **2.2 Entrepreneurship Education (EE)**

EE is defined as the development of attitudes, behaviours, and capacities that can be applied during an individual's career as an entrepreneur (Wilson et al., 2009). Furthermore, EE is complex, as demonstrated by the diversity of its goals and the multiplicity of the ways and contexts in which it is offered. Entrepreneurship-related instructional programmes assume various forms and applications. Pittaway and Cope (2007) and Pittaway and Edwards (2012) recognise education “for”, “about”, “through”, and “in” entrepreneurship. These forms are explained as follows:

- Education “for” entrepreneurship is created for individuals who want to start and run a business. The curriculum of such a course emphasises cognate competencies.
- Education “in” entrepreneurship emphasises the practical side of entrepreneurship. Participants in such programmes therefore learn by acting and behaving entrepreneurially. The focus is on the ability to move from idea recognition to creating value for customers.
- Education “about” entrepreneurship “follows the academic tradition and poses the question: how can we explain and understand entrepreneurship?” (Hoppe et al., 2017, p. 751).
- Education “through” entrepreneurship seeks to equip participants with human competencies that encourage an entrepreneurial approach to the pursuit of societal goals. Participants therefore have to “live” entrepreneurship. In this regard, every member of society, whatever their situation in life, is expected to eventually do things entrepreneurially.

In line with the preceding classification approach, Liñán (2004) proposed the following types of EE: entrepreneurship awareness education, education for start-up, education for entrepreneurial dynamism, and continuing education for entrepreneurship.

In most countries, including South Africa, EE training is offered by universities and training institutions. This research identified a similar training situation and thus conducted the investigation of entrepreneurship from a high school perspective.

EE stretches beyond merely teaching students to start a new business to incorporate other rich learning experiences that are gained from an educational environment. Collectively, interventions promote

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 (Steenekamp, 2013, p. 104).

This research therefore aimed to fully understand the impact of youth EIs on young people's intention to pursue entrepreneurship as a career and life choice.

### **2.3 Entrepreneurial Intervention (EI)**

This research intends to determine how youth EIs carried out during their high school years helped to motivate the participants to consider starting their own ventures, be problem solvers, and pursue entrepreneurship as a career. In addition, this research sought to investigate the transition from EI to EE through the incorporation of such interventions into the high school curriculum. In this research, the interventions to promote entrepreneurship were in the form of lectures, workshops, case studies, business plan competitions, and mentoring sessions; among other efforts.

Entrepreneurship support programmes such as business plan competitions are utilised to encourage entrepreneurship in and out of high school. Baluku et al. (2019) argue that entrepreneurship support programmes enhance students' desire to become businessmen and businesswomen in the future and are seen as an effective way of incentivising students to work on their ideas and to help to ignite the entrepreneurial spirit within them. EI is a term used in this research to define the interventions that promote entrepreneurship among young

people delivered during their high school years and taking the form of lectures or teachings, where the outcome of these lectures or teachings leads to entrepreneurial intentions.

In South Africa, efforts to drive entrepreneurial activity and awareness among high school students include:

- lectures / skills training;
- business plan competitions;
- entrepreneurial talks / workshops; and
- immersion, i.e., organisational visits.

**Figure 2.1: Current EIs in South Africa**



In countries where entrepreneurial activity is high, their efforts include the following:

- Intentionally designed curricula, such as a series of 12 educational modules geared towards high school students that contain instructional materials, learning activities, and exercises designed to teach key elements of entrepreneurship (Kourilsky & Esfandiari, 1997).
- The provision of curricular components needed to successfully develop ES. Examples include courses in negotiation, leadership, new product development, creative thinking, and an introduction to technological innovation (McMullan & Long, 1987; Rondstadt et al., 1988).
- Curricular and co-curricular opportunities to increase awareness of entrepreneurial career options (Donckels, 1991; Hills, 1988) and sources of venture capital (Zeithaml & Rice, 1987; Rondstadt et al., 1988).
- Techniques to protect ideas through patents and other measures (Rondstadt et al., 1988), as well as ambiguity tolerance (Ronstadt, 1985).
- The characteristics of an EP (Hills, 1988; Hood & Young, 1993; Scott & Twomey, 1998).

- The challenges of each stage of venture development (McMullan & Long, 1987; Plaschka & Welsch, 1990).
- Curricular opportunities for developing ES. Courses in entrepreneurship must also “enhance self-confidence and self-esteem” and help students “simply to understand entrepreneurship and the role it plays in our society” (Rabbior, 1990, p. 54).

The above points support the notion that the curriculum matters in successfully training students to be entrepreneurs. South African interventions fall short on preparing the next generation for entrepreneurship success, purely because they apply a light touch to EIs and also because it is not fully integrated into the school curriculum. An opportunity exists to embrace and integrate new forms of EIs.

## **2.4 ENTREPRENEURIAL INTENTION**

Entrepreneurial intention is the set of reasons that encourage individuals to engage in a particular behaviour or venture creation (Shane et al., 2003). Furthermore, entrepreneurial intention is defined as “a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future” (Thompson, 2009, p. 676). This study proposes that EI influences young people (primarily aged 16 to 21) and thus creates the much-needed ES that leads to continual entrepreneurial intention in South Africa.

Olufunso (2010) studied the entrepreneurial intention of South African graduates, as well as the motivators and obstacles to entrepreneurial intention. The study used two sets of questionnaires that were administered to high school and university students. The findings showed that entrepreneurial intention is very low in South Africa. The results indicate that youths perceive lack of capital, lack of skill, lack of support, lack of market opportunities, and risk as the main obstacles to entrepreneurial intention. Olufunso (2010) recommends EE to reduce the obstacles to youth entrepreneurship, since it is needed to enhance skills and knowledge. ES include creativity, innovation, risk-taking, and the ability to interpret successful entrepreneurial role models and identification of opportunities. Entrepreneurial intention drives people to engage in business behaviour (Kolvereid, 1996).

In addition, entrepreneurial intention is a direct antecedent of real behaviour, and the stronger the intention for behaviour, the bigger the success of behaviour prediction or actual

behaviour. Krueger et al. (2000) and Kolvereid and Isaksen (2006) claim that intentions are the single best predictor of most planned behaviour, including entrepreneurial behaviour.

De Pillis and Reardon (2007, p. 283) define entrepreneurial intention as “the intention to start a new business”. The decision to become an entrepreneur and create a new business is a deliberate and conscious decision (Wilson et al., 2007). An entrepreneurial career decision can therefore be considered as a planned behaviour that can be explained by intention models. In order to understand the entrepreneurship phenomenon, studying individuals’ entrepreneurial intentions based on socio-cognitive models has been considered a suitable approach to analyse new venture creation (Zhao et al., 2005).

The next section discusses the theory of entrepreneurship and entrepreneurial intention.

## **2.5 THE THEORY OF ENTREPRENEURSHIP AND ENTREPRENEURIAL INTENTION**

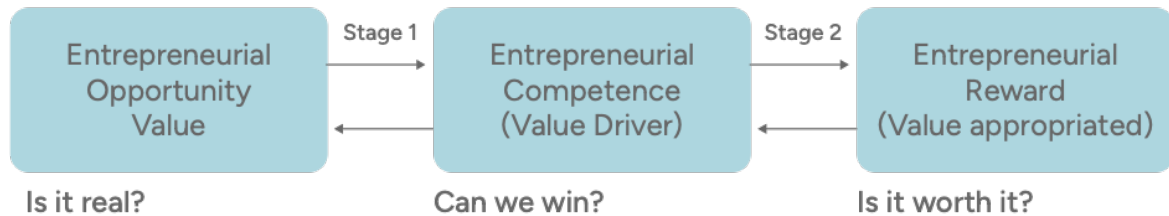
The theory of entrepreneurship, the entrepreneurial value-creation theory, explains the entrepreneurial experience in its fullest form. Venture creation originates from the entrepreneurial intention and the discovery of an entrepreneurial opportunity to the development of entrepreneurial competence, and the appropriation of the entrepreneurial reward (Mishra & Zachary, 2014).

The value-creation process begins with the recognition and exploitation of opportunities, which are defined as competitive imperfections in the market (Alvarez & Barney, 2010). This is because entrepreneurs play a more active role in creating market opportunities (Alvarez et al., 2014). In the theory of entrepreneurship, the entrepreneurial value-creation theory examines the workings of the entrepreneurial process using a two-stage value-creation (depicted in Figure 2.2) and appropriation framework (Mishra & Zachary, 2014).

In the first stage of venture formulation, the entrepreneur, driven by the entrepreneurial intention or an aspiration for entrepreneurial reward, discovers an external opportunity (or the opportunity may precede the entrepreneurial intention), and the opportunity is leveraged by the entrepreneurial resources at hand using an effectuation mechanism (Mishra & Zachary, 2014).

In the second stage of venture monetisation, the entrepreneur may obtain external resources such as venture capital or strategic alliances, if necessary, and build or acquire complementary dynamic capabilities (Mishra & Zachary, 2014).

**Figure 2.2: Entrepreneurial value creation**



Source: Mishra and Zachary (2014)

Figure 2.2 illustrates entrepreneurial value creation. In Stage 1, an external opportunity that has potential value is discovered by the entrepreneur. An inventor may create an invention, but the entrepreneur need not be the inventor. Furthermore, the Stage 1 processes are iterative until a real marketable opportunity is discovered, and sufficient entrepreneurial competence is developed to move to Stage 2. The entrepreneurial competence embeds the entrepreneurial ability and venture quality and offers a temporary advantage to the entrepreneur to move to the second stage. The entrepreneurial competence formulated in Stage 1 is assessed for whether the entrepreneur and their team have a winning strategy relative to the competition (Mishra, 2015).

This research hypothesises that ES have a positive influence on successful entrepreneurial intention and entrepreneurial intentions are therefore presumed as a dependent variable and it is a proxy measure for inclination towards entrepreneurship or venture creation. Three models that measure EI have been widely recognised in the literature, namely Ajzen's (1991) theory of planned behaviour (TPB), Shapero and Sokol's (1982) entrepreneurial event model (EEM), and Baum et al.'s (2007) psychological entrepreneurship theory. The TPB is a complete framework to understand intentionality, and empirical evidence supports its applicability (Fayolle & Liñán, 2014). In this study, the TPB and EEM were deemed appropriate for understanding the factors that influence the entrepreneurial intentions of young people from disadvantaged communities in South Africa. The TPB provided insight into their attitudes towards entrepreneurship (ATE), subjective norms (SN), and perceived behavioural control (PBC), while the EEM provided insight into the trigger events that lead to the formation of entrepreneurial intentions. While the focus of this study was on the TPB and EEM, exploring psychological entrepreneurship theories provided valuable context and

insight into the underlying psychological processes that contribute to successful entrepreneurship.

### **2.5.1 The theory of planned behaviour (TPB)**

The TPB was established as the theory of reasoned action in 1980 to predict an individual's intention to engage in a behaviour at a specific time and place (Ajzen, 1991). The theory intended to explain all behaviours over which people can exert self-control (Ajzen, 1991). Furthermore, the TPB is used to understand and predict behaviours, and posits that behaviours are immediately determined by behavioural intentions and, under certain circumstances, PBC (Ajzen, 1991).

A study was conducted in Turkey, in which the moderation effect of start-up experience was added to the TPB from a convenience sample of 528 undergraduate business administration students from the three most economically developed cities in Turkey. Hypotheses were tested by means of hierarchical multiple regression analysis and coefficients were estimated using ordinary least squares. The results showed that the relations within the model were significant. Ajzen's (1991) TPB holds for the Turkish case. Moreover, for the students with past start-up experience, the effect of both self-efficacy and personal attitude towards entrepreneurial behaviour on entrepreneurial intensity increased (Sabah, 2016).

This is also true for entrepreneurship research since becoming an entrepreneur is a conscious activity and intention is taken to be a cognitive state (Liñán, 2008). Moreover, it is argued that an entrepreneurial decision is a complex one and needs an intentional cognitive process (Liñán, 2008). As a result, instead of personality traits or demographic studies, cognition contains more significant information regarding entrepreneurial behaviour, since it is a "closer antecedent" for behaviour (Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2011; Kautonen et al., 2013). The outcomes of the previous work also suggested that the TPB is an applicable theory for entrepreneurial research (Liñán & Chen, 2009). Consequently, intention-orientated research in entrepreneurship literature is gaining popularity.

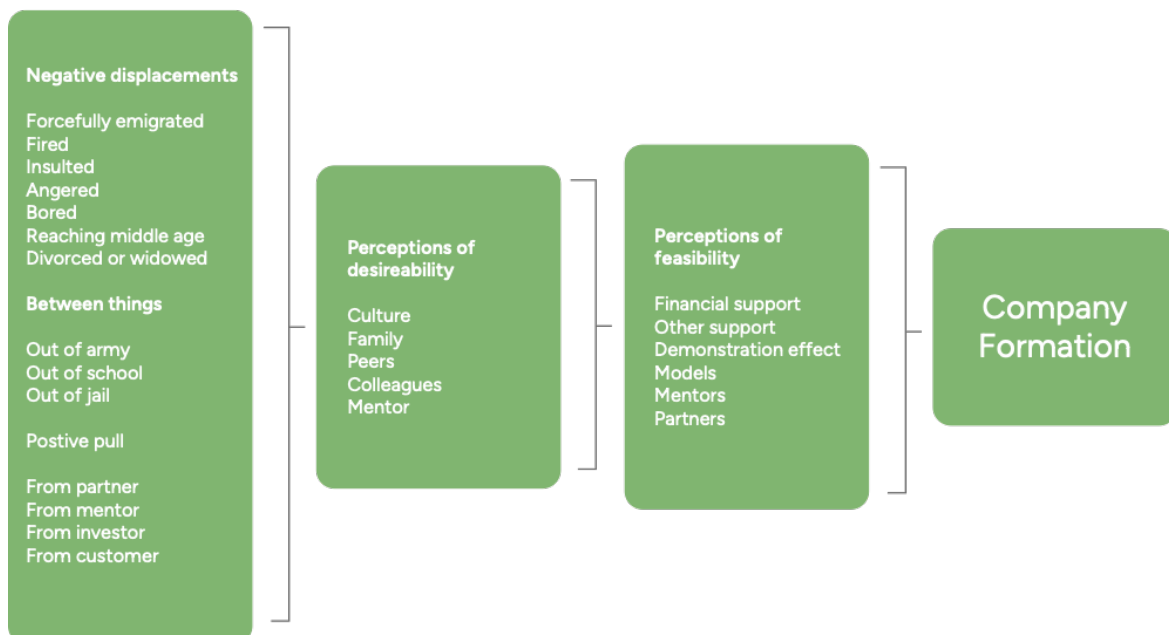
Through this examination, there is established support for the adoption of the TPB and that entrepreneurship could become a learned behaviour. This study used the TPB because it was utilised to describe the influence of EI on entrepreneurial intentions.

### 2.5.2 The entrepreneurial event model (EEM)

The EEM developed by Shapero and Sokol (1982) comprises three elements, namely displacement, perceived desirability, and perceived feasibility, which lead to intention formation (see Figure 2.3). According to Shapero and Sokol's (1982) model, human behaviour is guided by inertia until something disturbs or displaces it (Krueger & Brazeal, 1994). Displacement is the trigger that causes a change in behaviour (Shapero & Sokol, 1982). Ayob et al. (2013) explain that this displacement can be negative, such as lack of job satisfaction, or positive, such as rewards (e.g., promotion).

While perceived desirability refers to the attractiveness of starting an enterprise for an individual, perceived feasibility is the perception of an individual of his or her capability of starting an enterprise (Shapero & Sokol, 1982). The perception of desirability is influenced by the personal attitude, values, and feelings that result from the social environment of an individual, such as family, friends, and colleagues (Shapero & Sokol, 1982). Factors such as knowledge and human and financial resources, on the other hand, influence the perceived feasibility (the degree to which the individual feels capable of starting a business) and the propensity to act (as the personal disposition to act on one's decisions) (Shapero & Sokol, 1982). Shapero and Sokol (1982) developed a model of variables that affect entrepreneurial intentions. This model (see Figure 2.3) demonstrates the characteristics that influence the entrepreneur to start a company.

**Figure 2.3: The EEM**



Source: Shapero and Sokol (1982)

## **2.6 Entrepreneurship Intervention (EI) and Entrepreneurship Education (EE)**

This research assumes that a youth business development programme can be specially designed for South African youths to understand the business world and create their own business opportunities. These kinds of interventions might provide the teaching that is required by the country to produce more entrepreneurs. In the context of EE and training nurture future entrepreneurs, but little is known about the mechanism through which this intervention impacts on its intended outcomes (Ndofirepi, 2020).

The interventions included in the Youth Employment Accord are listed as “mentorship and coaching; youth business incubation; business infrastructure support; linkages to procurement opportunities; youth entrepreneurship awards; youth entrepreneurship promotion and awareness; youth special projects and sector-specific enterprise creation; national youth service programme and the youth entrepreneurship collateral fund” (Department of Small Business Development, 2013). Through the Youth Enterprise Development Strategy, the South African government sought to develop a strategy aimed at promoting and accelerating the development and growth of entrepreneurship and youth-owned and youth-managed enterprises. In addition, the Youth Enterprise Development Strategy encourages the mainstreaming of youth enterprise development in existing core programmes. It also proposes the development of unique support programmes aimed at promoting the development of youth entrepreneurship and youth-owned and -managed enterprises to achieve high impact.

With 20.4 million young people aged 15 to 34 years in the first quarter of 2020. These young people accounted for 63.3% of the total number of unemployed people. The unemployment rate of this group was 43.2% in the first quarter of 2020. Youths aged 15 to 24 years are the most vulnerable in the South African labour market. Despite the youth constituting 41.2% of the South African population, young people involved in entrepreneurial activity remains extremely low at 6%.

Recognising the potential impact of education on employability, this study emphasises the importance of integrating Entrepreneurship Education into the formal education system, particularly in high schools. EE is therefore important because exposure to EE is essential for acquiring entrepreneurial knowledge and skills, as well as developing other attributes associated with becoming an entrepreneur (Liu et al., 2022).

In addition, education in South Africa and around the world is recognised as a key instrument in human capital development (Stats SA, 2020). The more educated people are, the more likely their chances are for employment and jobs with good working conditions (Stats SA, 2020). Although the youths in the labour market are more vulnerable, those with a tertiary level of education have better chances of being employed (Stats SA, 2020). This study assumes that EE can be integrated into the education system, particularly high schools, to encourage the youth to view entrepreneurship as a first option in their economic participation endeavours.

South Africa, like any other country, aims to address problems and develop a labour force with knowledgeable and skilled people who are required for the changes brought by the 21<sup>st</sup> century. As an emergency mechanism to solve youth unemployment, it seems that the country requires some form of intervention (Chigunta, 2016). In that light, previous research has established that entrepreneurship can be taught and learned (Farashah, 2013; Franco et al., 2010; Piperopoulos, 2012; Ramayah et al., 2012; Sesen, 2013; Solesvik et al., 2013; Pliakoura et al., 2020). Entrepreneurship requires an apprenticeship, which entails learning entrepreneurial knowledge, competencies, and skills (Otache, 2018). Furthermore, there also seems to be consensus among governments, academics, and policymakers regarding the significance of entrepreneurship and EE (Byabashaija & Katono, 2011; Jones & Colwill, 2013; Turker & Selcuk, 2009). South Africa has still some way to go towards developing entrepreneurship as a significant driver of economic development and job creation. This research assumes that EE can be a catalyst.

To put it into context, research has acknowledged that EE, along with other factors and methods of support (e.g., sex education, access to healthcare, etc.), can tackle the problem of unemployment and poverty (Ahmad, 2015; Dejaeghere & Baxter, 2014; Henry, 2013; Jones & Colwill, 2013; Lourenco et al., 2013). To resolve the problem of graduate unemployment, many countries, as a matter of policy, have integrated EE into the curricula of their respective HEIs; for example, ES. Since the introduction of EE into the curricula of HEIs by different countries, researchers have empirically examined its impact on undergraduate students' self-employment intentions, with the findings showing a positive relationship between EE and undergraduate students' self-employment intentions (Fayolle et al., 2006; Turker & Selcuk, 2009). Most of these assessments have been undertaken in developed countries and other developing countries outside of the African continent, which means that research opportunities abound in Africa and African countries.

Sivarajah and Achchuthan (2013) suggest that educational institutions such as HEIs should introduce and strengthen EE. When learners are introduced to entrepreneurship from an early age (high school), it becomes easier to develop successful ventures. This research assumes that a youth business development programme can be specially designed for South African youths to understand the business world and create their own business opportunities. These kinds of interventions might provide the teaching that is required by the country to produce more entrepreneurs.

In the context of what this study aims to investigate, the researcher will engage young people who are beneficiaries of entrepreneurship interventions offered to South African youths in high schools by two South African non-profit organisations (NPOs). To that end, this research therefore proposes the following hypothesis:

***H<sub>1</sub>: Entrepreneurship Intervention (EI) has a positive influence on entrepreneurial intention.***

The next section discusses the EP.

## **2.7 ENTREPRENEURIAL PERSONALITY (EP)**

### **2.7.1 Psychological entrepreneurship theories**

Psychological entrepreneurship theories, such as Baum et al.'s (2007) psychological entrepreneurship theory, provide a deeper understanding of the personality traits and characteristics that are associated with successful entrepreneurship, such as the need for achievement, risk-taking propensity (RTP), and locus of control (LoC). These theories also provide insight into the cognitive and affective processes that underlie entrepreneurial behaviour, such as opportunity recognition, decision making, and persistence.

Dedekuma and Akpor-Robaro (2015) believe that psychological entrepreneurship theories are based on the individual's personal characteristics. Dedekuma and Akpor-Robaro (2015) state that psychological entrepreneurship theories assert that successful entrepreneurs possess certain personality characteristics that distinguish them from ordinary people. The view expressed by these scholars reaffirms the position of Landström (1998), who explains that the level of analysis in psychological theories is based on the individual.

Landström (1998) further argues that psychological entrepreneurship theories focus on personality characteristics that define entrepreneurship. Similarly, Linden (2015) suggests that those who ascribe to these theories assume that there is a psychological profile common to entrepreneurs. The scholars suggest that the psychological entrepreneurship theories include theories such as personality traits and LoC. These theories are discussed below.

### **2.7.2 Personality traits**

Personality traits have been described as the constant qualities that a person displays in given situations (Coon, 2004). In other words, personality traits are the enduring inborn characteristics or potentials of an individual that naturally make people successful entrepreneurs. Similarly, Llewellyn and Wilson (2003) explain that personality traits are more specific constructs that explain consistencies in the way people behave, which help to explain why different people react differently to the same situation.

Furthermore, trait theorists (Carland et al., 1988; McCrae, 1994; Mueller & Thomas, 2001; Pervin, 1994) assume that people are partly shaped through social learning processes in early childhood and partly by heritage or environmental influences. The proponents of the trait perspective believe that some individuals possess specific dispositions (qualities) that lead them to self-select entrepreneurial careers. Entrepreneurship literature identifies several attributes, traits, or skills that are associated with entrepreneurial behaviour and success (Deakins & Freel, 2009; Ramana et al., 2008). The most common characteristics or qualities associated with successful entrepreneurs include the need for high achievement, risk-taking or tolerance for risks, tolerance for ambiguity, good LoC, creativity, high level of management skills and business know-how, and innovation (Chen & Lai, 2010; Hornaday, 1982).

### **2.7.3 Locus of control (LoC)**

LoC has been considered one of the main aspects of personality traits. The term “locus of control” was first used by Rotter in the 1950s, who refers to it as a person’s perception of the underlying main causes of events that happen to them. Inegbenebor (2007) refers to LoC as the extent to which individuals believe that they can control events that affect them. Similarly, according to Bulmash (2016), LoC involves the perception of having personal control over situations and not being at the mercy of external circumstances.

Furthermore, researchers such as Phares (1976) and Lefcourt (1976) postulate that LoC is a term that explains the degree to which a person assumes or feels responsible for the success or failure in their life as opposed to feeling that external agents, like luck, are in control.

There are two types of LoC, namely internal and external LoC. Researchers such as Rao and Moulik et al. (1978), Rao and Pareek (1978), and Sarupriya (1982) found that an internal LoC is the most important characteristic of entrepreneurs. Rotter (1966) assumes that individuals with an internal LoC believe that they can control life events. Lefcourt (1976) and Phares (1976) believe that an internal LoC differs from an external LoC. A significant difference is that people with an internal LoC appear to take more initiative and are more responsible in performance situations when compared to those with an external LoC. For example, the scholars argue that those with an internal LoC seek and utilise information more efficiently and seem to be more in touch with external realities. These characteristics possessed by people with internal LoC are essential factors in enhancing achievement motivation. Empirical research demonstrates that internal LoC is an entrepreneurial characteristic that has been well documented in entrepreneurship literature (Cromie, 2000; Ho & Koh, 1992; Koh, 1996). In other studies concerning LoC, in a student sample internal LoC was found to be positively associated with the desire to become an entrepreneur (Bonnett & Furnham, 1991). In addition, Rauch and Frese (2000) found that business owners have a slightly higher internal LoC than other populations. Other studies have found a high degree of innovativeness, competitive aggressiveness, and autonomy (Utsch et al., 1999). The same is reported of protestant work ethic beliefs (Bonnet & Furnham, 1991), as well as risk-taking (Begley & Boyd, 1987).

In the context of what this research aimed to investigate, namely assessing the state of entrepreneurial intention among young people who are beneficiaries of an entrepreneurship intervention offered to South African youths in high schools by two South African NPOs, the study took the stance of the TPB to account for both intervention and intention towards a sound investigation that is aligned to the proposal that EI has a positive influence on entrepreneurial intention.

One of the most important streams of research to predict business intentions is personality traits. Research on the relationship between personality and entrepreneurship began decades ago and focused on advances in the last third of the 20<sup>th</sup> century (Kerr et al., 2018). According to Ciavarella et al. (2004), entrepreneurs with strong characteristics associated with high

performance are more likely to manage their businesses for a long time. Having certain personality traits will make people enjoy participating in entrepreneurial activities because they find these activities beneficial and satisfying. However, other people who lack certain characteristics related to entrepreneurial success may lack the desire to continue participating in entrepreneurial activities once they encounter major setbacks in their first project.

This research employed a measurement model consisting of EI, three dimensions of TPB, and three personality traits (proactive personality, RTP, and LoC), with all the latent constructs, including multi-items. The measurement tool allowed the researcher to examine the personality traits and TPB that can anticipate EI. The study therefore sought to test the following hypothesis:

***H<sub>2</sub>: EP has a positive influence on entrepreneurial intention.***

The next section discusses IC.

## **2.8 INTELLECTUAL CAPITAL (IC)**

This study aimed to develop an integrative conceptual framework to discover the relationship between various variables that influence entrepreneurial intention, such as EP, EI, and ES. The main variable in this research is entrepreneurial intention. The model will also create linkages between IC and the independent variables (EP, EI, and ES), as well as the dependent variable (entrepreneurial intention).

IC is defined as “the knowledge and knowing capability of a social collectively such as an organization, intellectual community, or professional practice” (Nahapiet & Ghoshal, 1998, p. 245). It is the knowledge that can be transformed into something of value for the company (Edvinsson & Sullivan, 1996). Brooking (1996) defines IC as the aggregation of all the intangible assets that enable a company to function.

IC is defined as the set of intangible assets from which ventures can derive their competitive advantage, enhance profit, create value, and continue to attract widespread attention (Bontis, 1996, 1998, 2001; Sveiby, 1997; Petty & Guthrie, 2000; Hormiga et al., 2011) for example, human capital and structural capital.

Components of Intellectual capital

### **1. Human Capital**

In the context of IC, human capital refers to the knowledge, skills, and capabilities of individuals within an organisation. In a business setting, human capital includes the expertise and competencies of employees, both internal and external stakeholders. It involves the intellectual resources that individuals bring to the organisation, encompassing employees, customers and suppliers (Çalhan et al., 2020).

## 2. Structural Capital

Structural capital represents the organisational capacity that is developed to meet the needs of the market. It involves the business' knowledge and level of education, as well as the acquisition, processing, and implementation of data (Çalhan et al., 2020). Structural capital can also be defined as the structure, strategy, process, and system that are used to meet customer demands and achieve the sustainability of the business (Çalhan et al., 2020). In a business, structural capital includes the knowledge management systems, organisational culture, processes, and strategies that contribute to the effective functioning of the organisation. In addition, Edvinsson and Sullivan (1996) define IC as “that knowledge which can be converted into value”. Academics define IC as the component that generates wealth for firms (Seng et al., 2018). Therefore, it is about how the business organizes, processes information, and implements its strategies to create value.

## 3. Relation to Competitive Advantage:

Intellectual Capital is considered a source of competitive advantage for ventures. It enhances profits, creates value, and attracts attention from various stakeholders. Companies that invest in developing the knowledge and skills of their workforce (human capital) and implement efficient knowledge management systems (structural capital) often gain a competitive edge. For instance, a technology company that fosters a culture of innovation (human capital) and implements robust project management processes (structural capital) is likely to outperform competitors.

## 4. Dynamic Process of Knowledge Conversion:

IC is not static; it's a dynamic process involving the effective conversion of information into valuable knowledge. In the academic context, researchers and scholars continuously engage in converting information from various sources into

new knowledge. Similarly, in a business context, companies that can adapt and convert market information into innovative products or services demonstrate the dynamic nature of intellectual capital.

#### 5. Wealth Generation for Firms:

IC is viewed as a component that generates wealth for firms. A software development company's intellectual capital might include the expertise of its software developers (human capital), proprietary software algorithms (structural capital), and a dynamic process of continuous improvement and innovation. This intellectual capital contributes to the company's ability to generate wealth through competitive products and services.

IC is not just a static intangible asset; it is an ideological process through which mere information is converted effectively into beneficial knowledge (Al-Jinini et al., 2019).

In the context of the study, the focus on assessing the ability of youth to convert their entrepreneurial knowledge into beneficial knowledge aligns with the dynamic nature of IC. The study aims to explore how the intellectual capital of the youth, encompassing their human and structural capital, contributes to the formation of entrepreneurial intention.

This conceptual framework recognizes that the effectiveness of Entrepreneurial Interventions (EIs) can be influenced by the intellectual capital of individuals, emphasizing the importance of knowledge and capabilities in entrepreneurial endeavors.

### **2.8.1 Intellectual Capital (IC) and entrepreneurial intention**

Andrikopoulos (2010) argues that many scholars have already shed light on the different dimensions of IC. The impact of IC on entrepreneurial intention was analysed in this study as intention is considered an important factor for predicting entrepreneurial activity (Krueger et al., 2000). Furthermore, several studies have analysed the impact of IC on entrepreneurial intention (Khan et al., 2020; Matricano, 2016; Ramos-Rodríguez et al., 2010; Ramos-Rodríguez et al., 2012). A study conducted by Khan et al. (2020) on the influence of IC on start-ups revealed that the components of IC, i.e., knowledge and skills, entrepreneurial opportunities, and the network, have a positive and significant impact on entrepreneurial intentions. In addition, Matricano (2016) tested whether IC could affect the start-up

expectations of aspiring entrepreneurs, and the results revealed that human, structural, and relational capitals affect start-up expectations.

The importance of start-ups has motivated some researchers to examine the role of IC in the success of start-ups (Hayton, 2005; Hormiga et al., 2011; Link & Ruhm, 2009; Musteen & Ahsan, 2013; Peña, 2002). The impact of IC on entrepreneurial intention is considered an important factor for predicting entrepreneurial activity (Krueger et al., 2000).

In addition, Khan et al. (2019) argue that IC is positively significant with entrepreneurial intentions; policymakers should therefore design policies to develop human capital and structural capital and facilitate interaction between existing and potential entrepreneurs so that new venture creation can be fostered. This highlights IC as a moderating factor between EI and entrepreneurial intention. This study therefore sought to test the following hypothesis:

***H<sub>3</sub>: IC moderates the relationship between EI and entrepreneurial intention.***

### **2.8.2 Intellectual Capital (IC) and entrepreneurial skills (ES)**

IC theorists consider that knowledge improves individuals' cognitive skills and allows them to work more productively and efficiently (Schultz, 1959; Becker, 1964; Mincer, 1974). Individuals with higher-quality IC should be better able to detect the existence of profitable business opportunities (Davidson & Honig, 2003). The prior knowledge that comes from experience in work, education, or other sources influences the entrepreneur's capacity to understand, extrapolate, interpret, and apply new information in a way that others cannot (Roberts, 1991).

Entrepreneurs discover opportunities because their prior knowledge triggers recognition of the value of new information (Shane, 2000). The knowledge base that constitutes the IC that could determine the individual's capacity to recognise business opportunities consists of, among others, their educational level, their knowledge, and skills relating to business start-ups, as well as their previous experience as an entrepreneur. Furthermore, the number of years individuals invest in their education is an important factor in successful start-ups, as is the acquisition of specific business management skills (Shane, 2003). If a link exists between educational level and firm creation, there should logically also be a relationship with these individuals' capacity to detect business opportunities, since recognition is the first stage in firm creation. This highlights IC as a moderating factor between ES and entrepreneurial

intentions. It is assumed in this research that ES lead to entrepreneurial intention; however, this relationship could be affected by a moderating variable such as IC.

IC can be classified as human capital and structural capital, and structural capital is further broken down into organisational capital and relational capital (Andrikopoulos, 2009). In addition, Kenton (2022) defines the term “human capital” as the economic value of a worker’s experience and skills. Human capital includes assets such as education, training, intelligence, skills, health, and other aspects that employers value, such as loyalty and punctuality (Kenton, 2022).

Human capital refers to intangible assets such as knowledge, technology, working ability, health, and healthcare possessed by employees (Amankwah-Amoah, 2018; Velayutham & Rahman, 2018). Wong and Zhang (2022) argue that the enhancement of human capital means cultivating more entrepreneurs with innovative entrepreneurship, strategic leadership, and personal charm, as well as entrepreneurial teams with complementarity, cohesion, and competitiveness.

Khan et al. (2019), Khan et al. (2020), and Liñán, Rodríguez-Cohard and Rueda-Cantuche (2011) suggest that the components of IC – knowledge and skills, entrepreneurial opportunities, and a network – have a positive and significant impact on entrepreneurial intentions. Therefore, because the IC variable cannot be measured independently, and its measurement always depends on other factors, this research focused on entrepreneurial opportunities, knowledge, and skills. Farrukh et al. (2017) employed organisational and relational capital components of structural capital in their questionnaire to measure the IC of their participants. This study therefore sought to test the following hypothesis:

***H<sub>4</sub>: IC moderates the relationship between ES and entrepreneurial intention.***

### **2.8.3 Intellectual Capital (IC) and Entrepreneurship Personality (EP)**

Employees contribute to the firm’s IC by bringing to the firm their skills, education, competencies, and mental agility (De Pablos, 2004). As the human capital definition indicates, personality is part of human capital; given that entrepreneurs are considered exceptional individuals. The characteristic that distinguishes them from others refers to the “entrepreneurial ego” and to their special behaviour due to their need for independence and control (McCarthy & Leavy, 1998). Age, sex, and race have also been included in many studies on human capital (Cooper et al., 1994; Cressy, 1999). In addition, human capital,

represented by the entrepreneur's education, gender, and race, may reflect the extent to which the entrepreneur has had the opportunity to develop relevant skills and contacts (Cooper et al., 1994). Research conducted by Cooper et al. (1994) sought to predict the performance of new ventures based on factors that can be observed at the time of start-up. The results showed that measures of general human capital influenced both survival and growth.

In addition, some scholars introduced a concept in human capital called entrepreneurial capital. This concept has yet to be studied in depth (Audretsch & Keilbach 2004, 2005; Lasch et al., 2013). The concept of entrepreneurial capital has its roots in the theory of entrepreneurship, which posits that countries with higher levels of entrepreneurship have greater demand for information to assess risk (Schumpeter & Nichol, 1934; Baron, 1998). Entrepreneurial capital is what people with similar characteristics and behaviours possess. The characteristics that these people possess are tenacity, the search for new challenges with some calculated risk, commitment at work, and a high entrepreneurial level (Audretsch & Keilbach, 2004). A firm's entrepreneurial capital refers to employees who innovate and take risks to contribute to their firm's progress (Rwigema & Venter, 2004). Entrepreneurs act as agents of change. Typically, entrepreneurs discover opportunities, resources, and processes that allow their firms to bring innovations to the market (Rwigema & Venter, 2004). In this research, the IC is the basis of the personality that entrepreneurs possess. Their personality makes them different as they are self-driven, which may impact their entrepreneurial propensity.

EP was examined in this research through the lenses of the characteristics that entrepreneurs possess. The study thus sought to test the following hypothesis:

***H<sub>5</sub>: IC moderates the relationship between EP and entrepreneurial intention.***

The next section discusses ES.

## **2.9 Entrepreneurial Skills (ES)**

ES refer to the knowledge or activities that enable a person to successfully establish and operate an enterprise (Liñán & Chen, 2009). According to Elmuti et al. (2012), ES may also be divided into three categories, namely technical skills, business management skills, and personal ES. Technical skills include skills in techniques such as written and oral communication skills, technical management, and organising skills; business management

skills include managerial skills such as planning, organising, etc.; and personal skills include risk-taking, innovation, and persistence. Although no two entrepreneurs are alike, they share entrepreneurial skill sets and risk-taking abilities (Qureshi et al., 2016).

Phelan and Sharpley (2012) suggest that entrepreneurs require various skills to develop specific competencies to manage an enterprise. ES in the form of higher personal attraction and SN enable individuals to feel competent and venture into entrepreneurship (Scherer et al., 1991). Researchers such as Kutzhanova et al. (2009) argue that entrepreneurial competency development requires entrepreneurs to learn a set of skills. These skills allow individuals to update their entrepreneurial aptitude, which provides knowledge regarding the challenge of starting a project (Entrialgo & Iglesias, 2016). As ES encompass sensing, seizing, and transforming, they are essential traits for developing dynamic capabilities (Teece, 2012). Furthermore, important skills for successful entrepreneurship include:

- identifying customer needs, technical opportunities, and market opportunities, as summarised by Hayton (2005);
- creating new opportunities (Alvarez & Barney, 2007);
- recognising social/market needs (Hunter, 2012); and
- finding (or creating) an opportunity and then developing skills to capitalise on the opportunity.

In addition, it is argued that entrepreneurs who possessed new resource skills were more confident in their ability to create their own ventures and steer them to high growth (Baum & Locke, 2004). It is also proposed in this research that higher ES lead to greater confidence within individuals regarding their competence to start their own ventures in the future. Developing people's ES would better enable them to operate their own firms and increase their EI (through the antecedents of ES) (Liñán, 2008). Entrepreneurs who have high ES display a high entrepreneur identity aspiration and are more inclined towards starting their own entrepreneurial ventures in the future. The study therefore sought to test the following hypothesis:

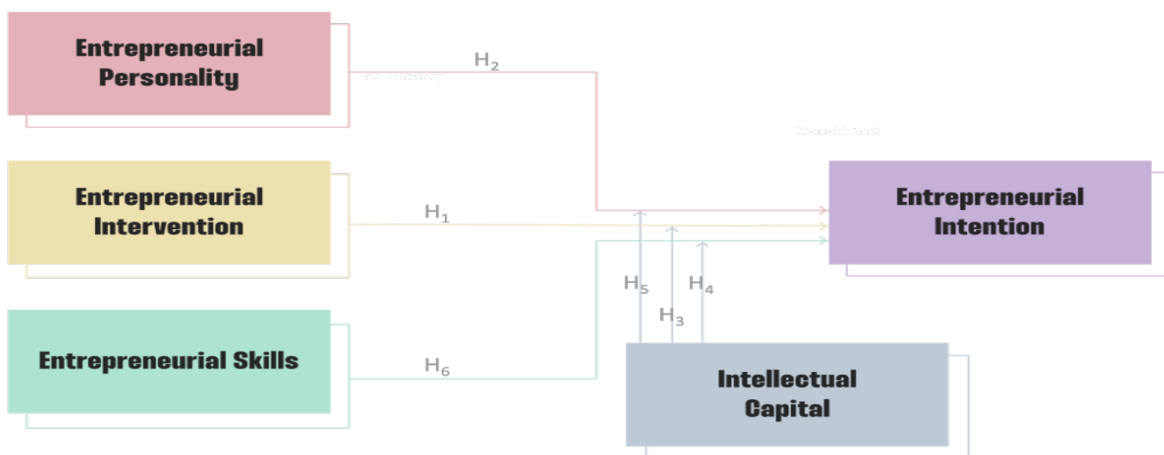
***H<sub>6</sub>: ES have a positive impact on entrepreneurial intention.***

## 2.10 THE PROPOSED ENTREPRENEURSHIP INTERVENTION RESEARCH MODEL

The researcher has presented and discussed the variables under investigation. Figure 2.4 shows the relationship based on the hypotheses to be tested as depicted in Figure 2.5.

The linking of the research variables stems from the process of EI for high school students. IC is identified as the moderating variable; with EP, EI, and ES as the independent variables, while entrepreneurial intention is the dependent variable. The examination of this logical process is the focus of this study.

**Figure 2.4: Proposed EI model (relationship between the components of EI with entrepreneurial intention)**



**Figure 2.5: Research variables**

Independent variable	Moderating variable	Dependent variable
<ul style="list-style-type: none"> <li>•EP</li> <li>•EI</li> <li>•ES</li> </ul>	<ul style="list-style-type: none"> <li>•IC</li> </ul>	<ul style="list-style-type: none"> <li>•Entrepreneurial intention</li> </ul>

To test the hypotheses, surveys that included items related to entrepreneurial intention, EP, and IC were used. The results of this study will help to understand the role of EI in promoting entrepreneurial intentions among youths from disadvantaged communities in South Africa.

The proposed EI research model offers a framework to investigate the impact of EI on entrepreneurial intention. The study’s findings can contribute to the development of effective EE programmes that can promote entrepreneurial intentions among youths from disadvantaged communities in South Africa.

**Table 2.1: Research hypotheses**

Hypothesis	Survey items	Theory
<p><b>Hypothesis 1:</b> EI has a positive influence on entrepreneurial intention.</p> <p><b>Null hypothesis:</b> EI does not have a positive influence on entrepreneurial intention.</p>	<p>EI survey (1-8 items) and entrepreneurial intention survey (1–21 items)</p> <p><b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p>	<p>* The entrepreneurial process involves the entrepreneur identifying an external opportunity; matching the entrepreneurial resources at hand with the opportunity to effectuate an entrepreneurial competence; acquiring external resources, if necessary; creating sustained value; and appropriating the entrepreneurial reward (Mishra &amp; Zachary, 2014).</p> <p>* Entrepreneurial intention is considered the first step in understanding the entrepreneurial process (Ajzen, 1991; Krueger &amp; Carsrud, 1993; Liñán, Rodríguez-Cohard &amp; Rueda-Cantuche, 2011).</p>
<p><b>Hypothesis 2:</b> EP has a positive influence on entrepreneurial intention.</p> <p><b>Null hypothesis:</b> EP does not have positive influence on entrepreneurial intention.</p>	<p>Entrepreneurial intention survey (1–12 items) (Entrepreneurial intention and personality are in the same survey)</p> <p><b>Personality:</b> PBC (1–6 items) LoC (1–4 items)</p> <p><b>Total items (1–21)</b></p>	<p>* According to Ciavarella et al. (2004), entrepreneurs with strong characteristics associated with high performance are more likely to manage their businesses for a long time.</p>
<p><b>Hypothesis 3:</b> IC moderates the relationship between EI and entrepreneurial intention.</p> <p><b>Null hypothesis:</b> IC does not moderate the relationship between EI and entrepreneurial intention.</p>	<p>IC survey (1–7 items)</p> <p><b>Response range:</b> 1 – Yes, 2 – No</p> <p>Entrepreneurial intention survey (1–12 items)</p> <p><b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p> <p>EI survey (1–8 items) and entrepreneurial intention survey (1–21 items)</p>	<p>* Khan et al. (2019) developed an IC assessment tool.</p> <p>* Khan et al. (2019) argue that there is still a paucity in measuring the role of IC in venture creation. Their study was an attempt to examine the influence of IC on start-ups. The results showed that the components of IC, i.e., knowledge and skills, entrepreneurial opportunities, and the network, have a positive and significant impact on entrepreneurial intentions. This instrument will therefore be applied in this research to test the students’ IC.</p> <p>* The intention to start a new venture generally depends on three perceptions: individual perception (knowing existing</p>

	<p><b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p>	<p>entrepreneurs or self-efficacy), perception of economic opportunities (entrepreneurial opportunities), and socio-cultural perceptions (Khan et al., 2019; Khan et al., 2019; Liñán, Santos &amp; Fernández, 2011).</p> <p>* IC is defined as the set of intangible assets from which ventures can derive their competitive advantage, enhance profit, create value, and continue to attract widespread attention (Bontis, 1996, 1998, 2001; Sveiby, 1997; Petty &amp; Guthrie, 2000; Hormiga et al., 2011).</p>
<p><b>Hypothesis 4:</b> IC moderates the relationship between ES and entrepreneurial intention.</p> <p><b>Null hypothesis:</b> IC does not moderate the relationship between ES and entrepreneurial intention.</p>	<p>Entrepreneurial intention survey (1–12 items) (Entrepreneurial intention and personality are in the same survey)</p> <p><b>Personality:</b> PBC (1–6 items) LoC (1–4 items)</p> <p><b>Total items (1–21)</b> <b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p> <p>IC survey (1–7 items) <b>Response range:</b> 1 – Yes, 2 – No</p> <p>ES survey (1–12 items) <b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p>	<p>* Edvinsson and Sullivan (1996) define IC as “that knowledge which can be converted into value”.</p> <p>* IC theorists consider that knowledge improves individuals’ cognitive skills and allows them to work more productively and efficiently (Schultz, 1959; Becker, 1964; Mincer, 1974).</p> <p>* The knowledge base that constitutes IC and that could determine the individual’s capacity to recognise business opportunities consists of, among other factors, their educational level, their knowledge and skills relating to business start-ups, and their previous experience as an entrepreneur.</p> <p>* The impact of IC on entrepreneurial intentions has been analysed in other studies as intention is considered an important factor for predicting entrepreneurial activity (Krueger et al., 2000).</p> <p>* Individuals with a higher-quality IC should be better able to detect the existence of profitable business opportunities (Davidson &amp; Honig, 2003).</p>
<p><b>Hypothesis 5:</b> IC moderates the relationship between EP and entrepreneurial intention.</p>	<p>IC survey (1–7 items) <b>Response range:</b> 1 – Yes, 2 – No</p> <p>Entrepreneurial intention survey (1–12 items) (Entrepreneurial intention and personality are in the same survey)</p>	<p>* The impact of IC on entrepreneurial intentions was analysed in this study as intention is considered an important factor for predicting entrepreneurial activity (Krueger et al., 2000).</p> <p>* Khan et al. (2019) argue that IC is positively significant for entrepreneurial intentions; policymakers should therefore design</p>

<p><b>Null hypothesis:</b> IC does not moderate the relationship between EP and entrepreneurial intention.</p>	<p><b>Personality:</b> PBC (1–6 items) LoC (1–4 items)</p> <p><b>Total items (1–21)</b> <b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p>	<p>policies to develop human capital and structural capital and facilitate interaction between existing and potential entrepreneurs so that new venture creation can be fostered.</p>
<p><b>Hypothesis 6:</b> ES have a positive impact on entrepreneurial intention.</p> <p><b>Null hypothesis:</b> ES do not have positive impact on entrepreneurial intention.</p>	<p>ES survey (1–12 items)</p> <p><b>Response range:</b> Strongly disagree – 1, Disagree – 2, Neither agree nor disagree – 3, Agree – 4, Strongly agree – 5</p>	<p>* Phelan and Sharpley (2012) suggest that entrepreneurs require various skills to develop specific competencies to manage an enterprise. ES in the form of higher personal attraction and SN enable individuals to feel competent and venture into entrepreneurship (Scherer et al., 1991).</p> <p>* Researchers such as Kutzhanova et al. (2009) argue that entrepreneurial competency development requires entrepreneurs to learn a set of skills. These skills allow individuals to update their beliefs about entrepreneurial aptitude, which provides knowledge regarding the challenges of starting a project (Entrialgo &amp; Iglesias, 2016). As ES encompass sensing, seizing, and transforming, they are essential traits for developing dynamic capabilities (Teece, 2012).</p>

## **2.11 CONCLUSION**

Entrepreneurial intentions have been studied extensively as a crucial predictor of entrepreneurship. In South Africa, the absence of EE in high schools has led to the emergence of NPOs that provide EI programmes to fill the gap. This chapter sought to review literature on the relationships between the proposed EI model variables and to develop a conceptual framework to determine the influence of EIs on South African youths' entrepreneurial intention.

This chapter explored the relationships between various variables in the study's proposed EI model. A conceptual framework was developed to investigate the impact of EIs on entrepreneurial intention in South African youth. The focus was on EE, which is currently lacking in high schools in South Africa and is instead provided by NPOs.

The theory of entrepreneurship was also reviewed, and the importance of entrepreneurial intention as a proxy measure for inclination toward entrepreneurship was discussed.

Additionally, the moderating variable of IC and its impact on entrepreneurial intentions and independent variables were examined, as well as the significance of ES in enabling successful enterprise operation. The review took into account the current state of entrepreneurship in South Africa, the relationship between EE and EI, and the applicability of the TPB to the investigation.

Based on this review, the researcher constructed a conceptual model that was tested in this study. Overall, this chapter provided a comprehensive understanding of the variables that influence entrepreneurial intention and their interrelationships, which paves the way for further research and practical application in the field of entrepreneurship.

## **CHAPTER 3: RESEARCH DESIGN AND METHODS**

### **3.1 RESEARCH PHILOSOPHY**

Research philosophy deals with the source, nature, and development of knowledge (Bajpai, 2011). In simple terms, a research philosophy is a belief about how data about a phenomenon

should be collected, analysed, and used. Positivism depends on quantifiable observations that lead to statistical analyses. It has been noted that as a philosophy, positivism is by the empiricist view that knowledge stems from human experience. It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner (Collins, 2010).

Other research philosophies, such as interpretivism and pragmatism, were considered. Interpretivism emphasizes understanding social phenomena through the meanings people attribute to them, while pragmatism advocates for a flexible approach that combines elements of both positivism and interpretivism.

The selected philosophy for this research was positivism. The positivist focuses on a strictly scientific empiricist method, and this method is designed to yield pure data and facts that are uninfluenced by human interpretation or bias (Saunders et al., 2009). Positivism was chosen due to its alignment with the study's objective of examining the impact of Entrepreneurial Interventions (EIs) on entrepreneurial intention using quantitative data. This philosophy favours empirical observation and statistical analysis, providing a structured and objective foundation for the research.

The use of positivism in studying the impact of EI on entrepreneurial intention provided valuable insights into the effectiveness of promoting entrepreneurship. This approach can lead to more empirical research and data-driven decision making, which can help design and implement effective EI programmes.

### **3.2 RESEARCH STRATEGY**

The strategy deemed most suitable for this study was a survey strategy because the positivist method uses the survey method. According to Levy and Lemeshow (1999), survey design involves two steps. Firstly, a sampling plan must be developed. The sampling plan is the methodology that will be used to select the sample from the population (Levy & Lemeshow, 1999, p. 6). The sampling plan describes the approach that will be used to select the sample, how an adequate sample size will be determined, and the choice of media through which the survey will be administered. Survey media include telephone and face-to-face interviews, as well as mailed surveys using either postal or electronic mail (Salant & Dillman, 1994, p. 3).

The second step is to design the questionnaire or survey instrument. This involves selecting appropriate questions and response options, as well as formatting and sequencing the

questions. The rationale for this step is to ensure that the questions are clear, unbiased, and measure the construct of interest accurately. The questionnaire design should also take into account the target population, including their literacy level and cultural background, to ensure that the questions are relevant and understandable.

Experimental designs, case studies, and interviews were alternatives. Experimental designs were less feasible due to ethical and practical constraints. Case studies and interviews, while valuable for depth, might not have allowed for generalisability.

The survey strategy was deemed most suitable as it aligns with the positivist philosophy. Surveys facilitate systematic data collection, allowing for a large sample size and statistical analysis. This was essential for drawing generalizable conclusions about the impact of EIs on entrepreneurial intention.

Using a survey strategy to study the impact of EI on entrepreneurial intention provided the researcher with a valuable tool for gathering large amounts of data from a diverse group of individuals and analysing it in a systematic and rigorous way. This approach helped to better understand the factors that influence entrepreneurial intention and how EIs may impact these factors, and ultimately lead to more effective entrepreneurship policies and programmes.

Using questionnaire design helped obtain accurate and meaningful data that can be used to study the impact of EI on the entrepreneurial intention of youth from disadvantaged communities. It helped the researcher to understand the factors that influence entrepreneurial intention, identify barriers and challenges, and determine the effectiveness of interventions in promoting entrepreneurship.

### **3.3 RESEARCH PURPOSE**

The causal-comparative purpose is applicable to this research. A causal-comparative design is a research design that seeks to find relationships between independent and dependent variables after an action or event has already happened. The researcher's goal is to determine whether the independent variable affected the outcome or dependent variable by comparing two or more groups of individuals.

Experimental designs, longitudinal studies, and cross-sectional studies were considered. Experimental designs were challenging due to ethical concerns, and longitudinal studies

might require an extensive time frame. Cross-sectional studies, while more feasible, may not capture causal relationships as effectively.

A causal-comparative design was considered an appropriate method for studying the influence of EI on entrepreneurial intention because it allowed for the examination of relationships between variables after the EIs had occurred. This design suits the study's objective of determining whether EIs influenced entrepreneurship intention and identifying specific factors.

This type of design was crucial in providing a clear understanding of the influence of EI on entrepreneurial intention and can aid in the development of more effective programmes and policies aimed at promoting entrepreneurship.

### **3.4 DATA-COLLECTION METHOD**

Data were collected using an electronic questionnaire on the SurveyMonkey platform, which was distributed to the targeted population. To improve the level of participation, the researcher worked with representatives from the case organisations to find ways to reach potential participants. The survey link was posted on social media platforms (i.e., LinkedIn and Facebook), and other means of communication such as SMS, WhatsApp, and email were used as a last resort to achieve the desired sample size.

Mailed surveys were alternatives and might have lowered response rates. The electronic questionnaire on SurveyMonkey was chosen for its efficiency, accessibility, and potential for a broad reach. It allowed for the collection of diverse responses from the targeted population using various communication channels, including social media.

### **3.5 SAMPLING**

To ensure the reliability and accuracy of the study results, the selection of a subset of the population is critical, as the participation of the entire population is not possible (Turner & Pech, 2021). In probability sampling, every item within a population has an equal probability of being chosen (Lohr, 2019). In this research, simple random sampling was the probability sampling method used to ensure that everyone in different learning years would have equal probabilities of participating in the research. By using simple random sampling, the researcher aimed to reduce the potential for bias in the sample selection process and increase the reliability of the results obtained from the sample.

Convenience sampling and purposive sampling were considered. Convenience sampling would have introduced bias, and purposive sampling would not be representative of the broader population.

Simple random sampling and stratified sampling were chosen to enhance the reliability and representativeness of the results. These methods aimed to ensure that each subgroup (cohort) was proportionally represented in the sample, improving the generalizability of findings.

The results obtained from the sample are thus more reliable and less prone to errors; thus leading to what the researcher believes are more accurate and trustworthy findings.

### **3.5.1 Population of the study**

Polit and Hungler (1999, p. 37) refer to a population as an aggregate or totality of all the objects, subjects, or members that conform to a set of specifications. In this study, the population was South African youths who participated in an EI during their high school years when they were aged between 15 and 18 years during the periods 2008 and 2019. As the study period ended in 2019, the last cohort with the youngest participant of 15 would have turned 18 by 2022, which means that at the time this study was conducted, all participants would have been 18 years of age or older. It can therefore be concluded that the study population consisted of South African youths aged between 18 and 21 years old during the time of the data analysis.

By focusing on this specific population, the researcher gained insights into the impact of EIs on the entrepreneurial intention of South African youths. Understanding the experiences and perceptions of this population would provide valuable information for the development of effective policies and programmes aimed at promoting entrepreneurship among young people in South Africa.

### **3.5.2 Survey population**

A survey population is the population from which information can be obtained for a survey (Organization for Economic Co-operation and Development [OECD], 2005). The purpose of this research was to determine the influence of EIs as seen through the work of Youth Leadership and Entrepreneurship Development (YLED) and Junior Achievement South Africa (JASA), which aims to improve the effect of EP and ES on the youth's entrepreneurial intention. The YLED and JASA EIs aim to impart ES that can help school-going youths in

making informed decisions about whether they should pursue entrepreneurship as a career and life choice. To achieve the objective of the study, students were selected from the YLED and JASA programmes as their focus is on youth entrepreneur development skills. JASA and YLED are youth business development programmes (EIs) that are designed especially for South African youths to understand the business world and create their own business opportunities. These kinds of interventions are assumed to provide the teaching that is required by the country to produce more entrepreneurs. The two programmes were implemented from 2008 with an average intake of 50 learners per year. YLED focuses mainly on the Johannesburg area of Gauteng, while JASA covers wider areas around the major South African regions. From the period of inception to 2019, they have each trained approximately 550 youths on ES. The survey population for this study is defined as South African youths who received EIs through YLED and JASA during the periods of 2008 and 2019, which is estimated to be 1 100.

### 3.5.3 Sample frame

A sampling frame is a list of all the items in a population. It is a complete list of everyone or everything one wants to study (Statistics How To, 2018). The sample frame of this study is students who attended YLED and JASA programmes from the year 2008 to 2019, aged between 18 and 35.

The young people who formed part of the study participated in EIs during high school, in Grade 11, and were aged between 15 and 18 years. At the time of the intervention, they would be categorised as from *previously disadvantaged communities* and schools from the Gauteng region. They were from poverty-stricken families that are mostly single-parent led, who earn a minimum wage at most, with no more than a senior certificate (high/secondary school) qualification. The young people were in Grade 11 from township schools (70%) and urban schools (30%) and were predominately black girls.

At the time of the study, all the young people had matriculated and were over the age of 18 and at different stages of life, such as:

- **Cohort 1** participated in the programme between 2008 and 2011 and would be professionals pursuing their careers and dreams.
- **Cohort 2** participated in the programme between 2012 and 2015 and would be young professionals pursuing their careers and dreams.

- **Cohort 3** participated in the programme between 2016 and 2019 and would be pursuing their graduate qualifications, perhaps starting or having started their careers while framing their futures.

Based on the characteristics of the population being studied, stratified sampling became a useful technique to ensure that a representative sample of the population was obtained. Stratified sampling involves dividing the population into subgroups, or strata, based on specific characteristics, and then selecting a sample from each subgroup proportionally to its size in the population. In this instance, the strata were based on the different cohorts that participated in the programme, as the cohort represents a different stage in the participants' lives. By using stratified sampling, the researcher was able to ensure that each cohort was represented in the sample. It is expected that this approach could contribute positively to the generalisation of the findings to the population as a whole.

#### **3.5.4 Sample size**

A sample size of 165 was calculated, which was considered to be statistically significant to model the influence of EIs on the entrepreneurial intentions of the youth using a margin of error of 10% and a confidence interval of 99%. The margin of error is a statistic that expresses the amount of random sampling error in the results of a survey. The larger the margin of error, the less confidence one should have that the results would reflect the results of a targeted population, while the confidence level indicates the possible accuracy of the results from the sample. The confidence interval is expressed as a percentage and represents how often the true percentage of the population would pick an answer that lies within the confidence interval from a population of youths who received EIs through YLED and JASA during the period of 2008 to 2019. The sample size of 165 represented 15% of the targeted population.

The use of probability sampling methods, such as simple random sampling and stratified sampling, enhances the reliability and accuracy of the study results, and makes them more trustworthy and informative for policymakers and practitioners.

### **3.6 RESEARCH INSTRUMENTS**

EI is critical in the development of youths from disadvantaged communities in South Africa. The aim of this study was to investigate the impact of EI on the entrepreneurial intentions of

young people who participated in either JASA or YLED programmes between 2008 and 2019. To achieve this, various research instruments were used to collect data. This section focuses on the positioning of the research instruments as part of the research design and methods. The instruments used included a questionnaire, an IC indicator, an EP and entrepreneurial intention indicator, an ES indicator, and an entrepreneurial intention indicator.

### **3.6.1 Questionnaire**

The questionnaire had a total of 75 questions and was estimated to be answered in 30 minutes. Before the respondent could engage with the survey, the researcher indicated the following to the respondents to note prior to taking the survey: purpose of the study; that participation was entirely voluntary; that the research would not harm their integrity in any way; and the length of the survey in terms of time to complete, i.e., approximately 30 minutes. They were then invited to answer all the questions in the provided spaces, to give honest opinions, to try to complete the questions when they were least likely to be interrupted, to avoid spending too much time on a question, and if they had any questions about this research project or would like more information, they were welcome to contact the researcher on the provided contact details. By adhering to these ethical considerations, the study aimed to ensure the welfare, rights, and privacy of participants. The commitment to ethical practices strengthens the credibility of the research and promotes a positive research experience for participants.

The questionnaire's design is aligned with the study's quantitative nature, enabling the collection of demographic data and responses related to constructs such as Entrepreneurial Intention (EI), Entrepreneurial Personality (EP), Intellectual Capital (IC), and Entrepreneurial Skills (ES).

The questionnaire collected the following demographic data:

- Age: Participants were afforded the opportunity to provide their actual age.
- Gender: Participants were afforded the opportunity to provide gender in accordance with their identification (male, female, other).

- Race: Participants were provided with race categories in line with the South African race profile (black, white, coloured, Asian, and Indian).
- Employment status: Actual employment status at the time of the study.
- Groups were derived based on the period in years of programme participation:
  - EI Cohort 1: 2008 – 2011
  - EI Cohort 2: 2012 – 2015
  - EI Cohort 3: 2016 – 2019
- Participation in EIs was based on the types of programmes they participated in:
  - Life Skills and Mentorship (LSM) programme
  - Mini Enterprise Programme (MEP)
  - YLED programme

### **3.6.2 Intellectual Capital indicator**

Khan et al. (2019) developed an IC assessment tool. Khan et al. (2019) argue that there is still a paucity in measuring the role of IC in venture creation. Their study was an attempt to examine the influence of IC on start-ups. The results showed that the components of IC – knowledge and skills, entrepreneurial opportunities, and the network – have a positive and significant impact on entrepreneurial intentions. This instrument was thus applied in this research to test the IC of the participants.

A validated questionnaire from Ajzen (1991) and Passaro et al. (2018) was used with no modifications. It comprised seven questions aimed at providing insight on the role of IC in informing entrepreneurial intentions and its relationship to ES.

The Intellectual Capital (IC) indicator from Khan et al. (2019) was chosen due to its relevance in measuring the influence of IC on venture creation. Its application in a similar context suggests that it is a suitable instrument for evaluating the impact of IC on entrepreneurial intention in the South African youth population.

This construct was initially used as the moderator. The respondent was expected to respond to each question with either a yes or no response.

### **3.6.3 Entrepreneurial Personality and entrepreneurial intention indicator**

Munir et al. (2019) developed an assessment tool for EP and entrepreneurial intention. Their purpose was to expand the existing literature on entrepreneurial intention by employing the integrated model of personality traits and the TPB. It further examined the mediating role of the TPB's dimensions between personality traits and the entrepreneurial intentions of final-year university students in two diverse economies: China and Pakistan. The results of their research revealed several differences regarding the impact of personality traits and TPB on entrepreneurial intention across the two countries. The impact of the TPB was positive and significant in both countries; however, the TPB demonstrated more explaining power in China's student sample. Using three personality traits (RTP, PP, and internal LoC) as antecedents to the TPB, the results revealed a stronger influence of personality traits among Chinese students. The mediation of the three dimensions of the TPB also revealed differences between country samples (Munir et al., 2019).

This instrument was then applied in this research to test for EP and the entrepreneurial intention of the students. The EP construct comprises 20 questions sourced and validated by Munir et al. (2019) on a five-point Likert scale to prove that EP does have a relationship with entrepreneurial intentions. The factors from this variable were used as independent variables in the regression model.

### **3.6.4 Entrepreneurial Skills indicator**

Mamabolo and Myres (2019) developed an ES questionnaire, which was tested and validated with a sample of 235 entrepreneurs. Their article concluded with implications for mixed-methods researchers who want to develop new instruments and scholars conducting research on ES.

This instrument was applied in this research to test for ES of YLED and JASA students as they had attended the EIs offered by these organisations. This section comprised 31 questions sourced from Su et al. (2021) on a five-point Likert scale to provide insight into the role of ES in influencing entrepreneurial intentions. The factors from this variable were used as independent variables in the regression model.

The Entrepreneurial Personality (EP) and Entrepreneurial Skills (ES) indicators from Munir et al. (2019) and Mamabolo and Myres (2019) respectively were chosen based on their proven ability to measure personality traits and skills in the entrepreneurial context.

### **3.6.5 Entrepreneurial intention indicator**

The entrepreneurial intention indicator comprised eight questions sourced from Tiftik and Zincirkiran (2014) on a five-point Likert scale to provide insights into the role of entrepreneurial intention and its influence. The factors from this variable were used as dependent variables in the regression model.

This instrument was applied in this research to test for the impact of EI on the entrepreneurial intention of the youth in South Africa.

### **3.6.6 Potential analysis implications**

Based on the research instrument, the answer options for the IC scale were binary and all other scales were five-point Likert scales. The researcher was mindful that the use of different types of scales (binary and Likert scales) in a single study could have potential implications for the analysis of the data (Hox & Bechger, 1998; Norman & Streiner, 2008). When using binary scales, the responses are limited to either “yes” or “no”, which may result in a loss of information and a lack of granularity in the data. This can make it difficult to fully capture the nuances of the participants’ attitudes or behaviours towards the construct being measured. It also has implications for statistical analysis.

To mitigate this gap, the researcher ensured that appropriate statistical methods were used to analyse the collected data.

### **3.6.7 Conclusion**

In conclusion, the research instruments used in this study were carefully selected to collect data on the impact of EI on entrepreneurial intentions among youths from disadvantaged communities in South Africa. The questionnaire was used to collect demographic data, while the IC, EP and entrepreneurial intention indicators, and ES and entrepreneurial intention indicators were used to test the relationship between these constructs. The results of this study will provide insight into the effectiveness of EIs and their impact on the entrepreneurial intentions of young people.

## **3.7 DATA ANALYSIS**

The demographic input variables were of a categorical data type and the construct variables were of an ordinal data type derived from a five-point Likert scale. Descriptive statistical

analysis were performed for all variables and frequencies and percentages arranged in tables and graphs were used to present the results.

Analysis started by performing a reliability test using Cronbach's alpha statistics on ordinal variables with an acceptance level of 70% or above. Factor analysis was applied to all constructs that passed the reliability tests using principal component analysis and applied the Kaiser criterion for choosing the number of factors per construct. Factor loadings were derived using the regression method and were tested for normality using skewness, kurtosis, and histograms. Factors were also tested for independence using analysis of variance (ANOVA) at a 5% level of significance. New factors were named based on the combinations of constructs and factor loadings. Linear regression was used to test the association between the dependent variables and the independent variables using ANOVA at a 5% level of significance, as well as to derive coefficients of parameter estimates and their 95% confidence intervals. The generalised linear model (GLM) method was used to test the relationship between the dependent variable and two-way combinations of factors in the third hypothesis. Significant coefficients from both the linear regression and GLMs were used as input in the framework.

### **3.8 RELIABILITY AND VALIDITY**

Cronbach's alpha tests to determine if multiple-question Likert scale surveys are reliable. These questions measure latent variables, namely hidden or unobservable variables. Cronbach's alpha reports how closely related a set of test items are as a group (Statistics How To, 2021). In this research, the constructed measure of the research variables was tested, namely EI, EP, ES, IC, and entrepreneurial intention.

### **3.9 DESCRIPTIVE ANALYSIS**

The researcher used a descriptive statistical analysis method to determine the influence of EIs on entrepreneurial intention in South African youths. Descriptive statistics is the term given to the analysis of data that helps describe, show, or summarise data in a meaningful way such that, for example, patterns might emerge from the data. Descriptive statistics therefore enable researchers to present data in a more meaningful way, which allows simpler interpretation of the data. It also measures central tendency, by describing the central position of a frequency distribution for a group of data (Laerd Statistics, 2018).

### **3.10 CONFIRMATORY FACTOR ANALYSIS**

In this research, it was important to accurately test if the survey measured the variables, which were EI, EP, IC, and ES, which lead to entrepreneurial intention in South African youths. The Kaiser-Meyer-Olkin (KMO) test was used to measure how suited the data were for factor analysis. The test measures sampling adequacy for each variable in the model and for the complete model (Statistics How To, 2021).

### **3.11 HYPOTHESIS TESTING**

Hypothesis testing is an act in statistics whereby an analyst tests an assumption regarding a population parameter. Hypothesis testing is used to assess the plausibility of a hypothesis by using sample data. Such data may come from a larger population, or from a data-generating process.

In this research, it was important to effectively assess the plausibility of the hypotheses using the collected data. The hypotheses being tested for plausibility in this research included:

- EI has a positive influence on entrepreneurial intention. This hypothesis posits that exposure to Entrepreneurial Interventions positively impacts the likelihood of South African youths developing entrepreneurial intentions.
- EP has a positive influence on entrepreneurial intention. This hypothesis suggests that certain personality traits associated with entrepreneurship positively influence the formation of entrepreneurial intentions among young individuals.
- IC moderates the relationship between EI and entrepreneurial intention. This hypothesis implies that the impact of Entrepreneurial Interventions on entrepreneurial intention is influenced by the level of Intellectual Capital possessed by the individuals.
- IC moderates the relationship between ES and entrepreneurial intention. This hypothesis posits that the influence of Entrepreneurial Skills on entrepreneurial intention is contingent on the level of Intellectual Capital.
- IC moderates the relationship between EP and entrepreneurial intention. This hypothesis suggests that the relationship between Entrepreneurial Personality and entrepreneurial intention is moderated by the level of Intellectual Capital.

- ES have a positive impact on entrepreneurial intention. This hypothesis suggests that a higher level of Entrepreneurial Skills contributes positively to the development of entrepreneurial intentions.

These hypotheses served as a guide for the analysis, allowing for a systematic exploration of the relationships between key constructs in the study.

### **3.12 CONCLUSION**

This research design and method chapter provided a detailed overview of the approach used to investigate the relationship between EIs and entrepreneurial intention in South African youths. The research philosophy was positivism. The method employed was a quantitative survey used to gather data from the population of young people between the ages of 18 and 35 who attended YLED and JASA interventions while they were in high school between 2008 and 2019. The sample population in the South African context was classified as disadvantaged youths. The study used a causal-comparative design to determine the impact of these interventions on entrepreneurial intention. The data were collected through an electronic questionnaire on the SurveyMonkey platform that was shared through social media and other communication platforms through simple random sampling.

Descriptive statistics, factor analysis, and regression methods were chosen as data analysis tool, for their compatibility with quantitative data. These methods enabled a detailed examination of relationships, ensuring a robust analysis of the impact of EIs on entrepreneurial intention.

The chapter established the framework for conducting the study on the relationship between EIs and entrepreneurial intention in South African youths. It set the foundation for the analysis of the data and provided a roadmap for the results and discussion chapter

## **CHAPTER 4:**

### **DATA-ANALYSIS STRATEGIES: PILOT STUDY**

#### **4.1 INTRODUCTION**

This chapter focuses on the analysis and interpretation of the data collected through the pilot study. It discusses descriptive analysis, reliability and analysis, and the reliability and validity of instruments employed in this study. It also discusses the techniques applied in pilot study analyses. The pilot study took place in South Africa. The survey was distributed to all JASA and YLED alumni.

A sample of 35 youths in South Africa who participated in EIs through JASA and YLED were sampled using the online questionnaire designed on SurveyMonkey. Data collection for piloting occurred over a period of 30 days from the middle of March 2022 to the middle of April 2022, where possible respondents were notified of the pilot study and invited to participate.

The outcomes and recommendations from the pilot study were used to guide the research.

#### **4.2 PILOT STUDY**

A pilot study, also called a feasibility study, is a small-scale preliminary study conducted before any large-scale quantitative research to evaluate the potential for a future full-scale project (Simkus et al., 2022). A pilot study was conducted in this research to help identify design issues and to evaluate feasibility, practicality, resources, time, and costs before conducting the main research. The researcher conducted the study with a sample of 35 participants for the following main reasons: design, feasibility, practicality, resources, time, and cost considerations:

- **Design:** The researcher designed the survey using SurveyMonkey. The survey link was sent to respondents to complete the survey. The data were extracted using a Microsoft (MS) Excel spreadsheet. The document was password protected and sent to a statistician for analysis.
- **Feasibility:** The researcher assessed the feasibility of the study, especially the accessibility of respondents.

- **Practicality:** The researcher assessed whether respondents were able to answer the questions.
- **Resources:** The researcher assessed the challenges with resources that may occur during the main study. The researcher checked if the verified captured data would yield the proposed model. The researcher also evaluated the survey overall.
- **Time and cost:** The researcher assessed the challenges with time and cost that may occur during the main study.

## 4.2.1 Pilot study results

### 4.2.1.1 Design

The questionnaire contained the following five sections, grouped according to the variables of interest for the study:

- **Demographic data:** This section comprised nine questions and aimed to collect the demographics of the respondents, which would assist in confirming that the respondents were part of the targeted population.
- **Perception of IC:** This section comprised seven questions sourced and validated by Ajzen (1991) and Passaro et al. (2018) to provide insight into the role of IC in informing entrepreneurial intentions and its relationship to ES. This factor variable was used as the moderator in the regression model.
- **EP:** This section comprised 20 questions sourced and validated by Munir et al. (2019) to prove that EP has a relationship with entrepreneurial intentions. The factors from this variable were used as independent variables in the regression model.
- **ES:** This section comprised 31 questions sourced from Su et al. (2021) to provide insight into the role of ES in influencing entrepreneurial intentions. The factors from this variable were used as independent variables in the regression model.
- **Entrepreneurial intention indicator:** This section comprised eight questions sourced from Tiftik and Zincirkiran (2014) to provide insights into the role of the entrepreneurial intention of individuals to start a business and its influence on promoting entrepreneurship. The factors from this variable were used as dependent variables in the regression model.

#### 4.2.1.2 Feasibility

The researcher assessed the feasibility of the study, especially the accessibility of respondents. The learners were informed of the study and the link was shared to 50 of the learners from both NPOs. Of the distributed questionnaires, 35 respondents completed the questionnaire. Feedback from the pilot study indicated that 91% of the respondents from YLED was reached and 9% of JASA respondents.

Table 4.1 presents the results of the pilot study that investigated the impact of EIs on entrepreneurial intention among disadvantaged youths in South Africa. The table shows the frequency and response rates of the target population in each year from 2008 to 2019, along with the targeted response rate and the margin of difference between the targeted and actual response rates.

The table is presented to provide an overview of the frequency and response rates of the target population over time, and to assess the effectiveness of the EI programmes in promoting entrepreneurial intentions among disadvantaged youths in South Africa. The targeted response rate of 8% is used as a benchmark to measure the success of the EI programmes.

The results indicate that the response rate of the target population fluctuated over time, with some years exceeding the targeted response rate and others falling short. For example, in 2008 and 2014, the response rate was 17%, which exceeded the targeted response rate by 9%. However, in 2011 and 2018, the response rate was only 3%, which fell short of the targeted response rate by 5%.

**Table 4.1: Frequency and response rate of disadvantaged youths' entrepreneurial intention in South Africa (2008 to 2019)**

Year	Frequency	Response	Targeted	Margin
2008	6	17%	8%	9%
2009	2	6%	8%	-2%
2010	3	9%	8%	1%
2011	1	3%	8%	-5%
2012	5	14%	8%	6%
2013	0	0%	8%	-8%
2014	6	17%	8%	9%
2015	2	6%	8%	-2%
2016	2	6%	8%	-2%
2017	3	9%	8%	1%
2018	1	3%	8%	-5%
2019	4	11%	8%	3%

The researcher targeted 8% responses per year for 11 years equally split between YLED and JASA. The results from the pilot indicated that the researcher was able to achieve a higher response rate in 2008, 2012, 2014, and 2019. The year 2013 was not represented in the responses of the pilot study and five of the 12 years were below the quota.

#### **4.2.2 Practicality**

The questionnaire had a total of 75 questions and was estimated to be answered in 30 minutes. Of the 35 responses, 34 respondents answered all questions within the stipulated time. This provided a 99% response rate for all questions with missing values only from the one respondent who did not continue with the survey. In total, missing values recorded from the data were less than 3%.

The researcher also indicated the following to the respondents prior to taking the survey:

- The purpose of the study.
- Participation is entirely voluntary.
- Participation in the research will not harm their integrity in any way.
- The questionnaire will take approximately 30 minutes to complete; they were therefore urged to answer all questions in the space provided, give their honest opinions, know that the first reaction is the most effective, they should not dwell on any question for too long, and they should try to complete the questions when they are least likely to be interrupted.
- Except for their time, completing the questionnaire would not incur any related costs.
- After completing the research, upon request, the researcher would provide feedback.
- If they had any questions about this research project or would like more information, they were invited to contact the researcher on his mobile: +27 83 953 6524, or email: [steven.zwane@durham.ac.uk](mailto:steven.zwane@durham.ac.uk).

##### **4.2.2.1 Resources**

All instruments (as discussed in Section 3.6) were questionnaires that were sourced online that were available for use by the researcher at no cost. The questionnaires were retyped in MS Word for ease of transfer into SurveyMonkey. SurveyMonkey is an online cloud system

that requires its users to have a profile prior to usage. It provides a free service with limited resources and a seven-day trial of costed services. The researcher used the trial of costed services to design, distribute, and collect data. This process was completed by the researcher at no cost.

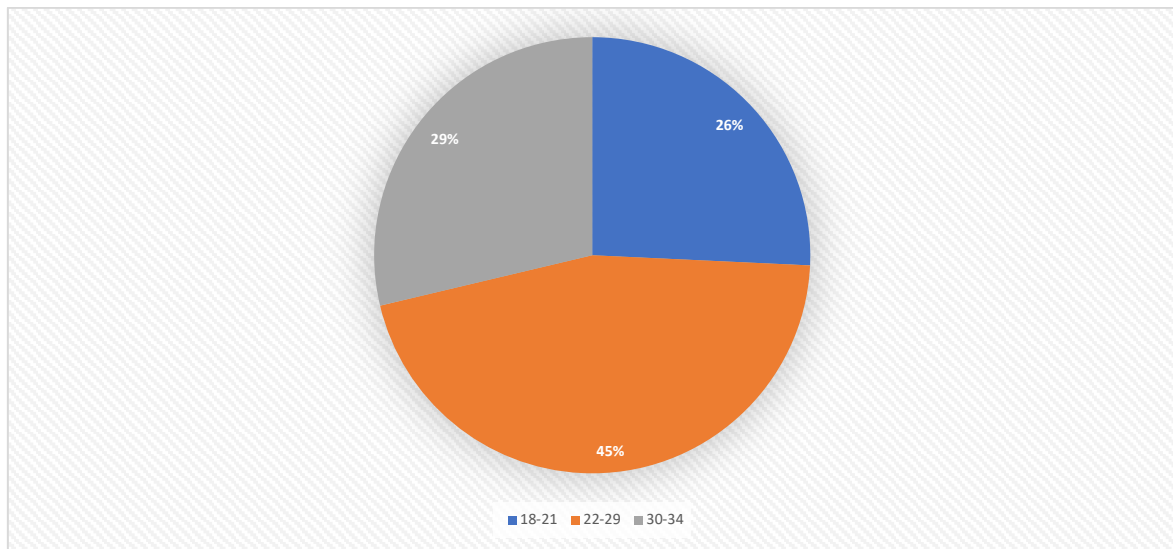
The data from the system were sent to a statistician to perform data cleaning and preparation, descriptive statistics and preliminary distribution tests, validity, and factor analysis.

**Table 4.2: Pilot study process**

Process	Resource	Duration	Cost
Questionnaire design	Researcher	1 week	R0
SurveyMonkey profile on trial	Researcher	1 day	R0
SurveyMonkey training on the system	Researcher	1 day	R0
Questionnaire loading and distribution	Researcher	2 days	R0
Data analysis and reporting	Statistician	1 week	R6 000

#### 4.2.2.2 Results

**Figure 4.1: Age distribution**



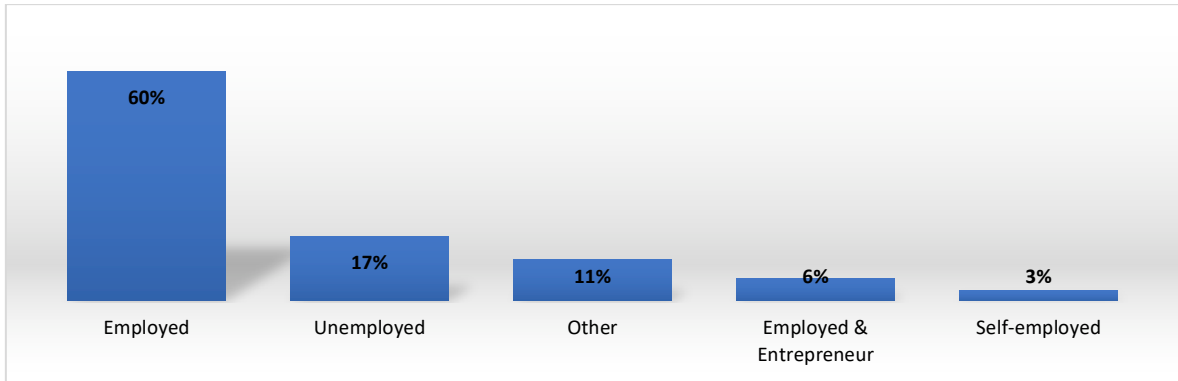
The majority of the respondents were aged between 22 and 29 (54%) and the sample was dominated by females (57%).

**Table 4.3: Respondents by education**

Education	Frequency	Percentage
Certificate	2	6%
Grade 12 / Equivalent	8	23%
Postgraduate	15	43%
Undergraduate	9	26%
(Blank)	1	3%
<b>Total</b>	<b>35</b>	<b>100%</b>

Three percent of the respondents did not indicate their education level and 43% had a postgraduate degree. It should be noted that the respondents are recruited for the programmes from Grade 11; the progressions into post-matric, undergraduate, and postgraduate (92%) are achieved post-EI.

**Figure 4.2: Distribution by employment status**



Of the 35 respondents, 60% were employed, 6% were employed and practising entrepreneurship, while 3% were self-employed.

#### 4.2.2.3 Reliability analysis/item analysis

##### (a) IC reliability test

The average Cronbach's alpha for the IC indicator is 0.298. The alpha value is lower than the expected value of above 0.6 to confirm that the responses for this variable were consistent and reliable. Although the alpha is not significant, the model suggests that variables IC2, IC4, and IC6 must be removed to improve reliability. The proposed moderating variable will be rejected as the revised alpha would still be below 0.6. Variable IC5 had no variance.

**Table 4.4: IC: Cronbach's alpha reliability measure**

IC indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
IC1: I have the required knowledge and skills to start a business.	.329	.169
IC2: There are good opportunities to start a business in the area where I live.	-.062	.398
IC3: I know someone who started a firm in the past two years.	.131	.272
IC4: Self-confidence: Generally, when facing difficult tasks, I am certain that I will accomplish them.	.026	.312
IC5: Internal LoC: My life is determined by my own actions, not by others or by chance.	0	0

IC6: Proactiveness: If I see something I do not like, I change it.	.026	.312
IC7: I have some prior experience in owning and managing a business.	.400	-.093

(b) *IC indicator reliability test*

The average Cronbach's alpha for the IC indicator is 0.298. The alpha value is lower than the expected value of above 0.6 to confirm that the responses for this variable were consistent and reliable. Although the alpha is not significant, the model suggests that variables IC2, IC4, and IC6 be removed to improve reliability. The proposed moderating variable will be rejected as the revised alpha would still be below 0.6. Variable IC5 had no variance.

**Table 4.5: Reliability test of the IC indicator**

IC indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
IC1: I have the required knowledge and skills to start a business.	.329	.169
IC2: There are good opportunities to start a business in the area where I live.	-.062	.398
IC3: I know someone who started a firm in the past two years.	.131	.272
IC4: Self-confidence: Generally, when facing difficult tasks, I am certain that I will accomplish them.	.026	.312
IC5: Internal LoC: My life is determined by my own actions, not by others or by chance.	0	0
IC6: Proactiveness: If I see something I do not like, I change it.	.026	.312
IC7: I have some prior experience in owning and managing a business.	.400	-.093

(c) *EP reliability test*

The overall Cronbach's alpha of EP and intention indicator is 0.918. The variables of EP and the entrepreneurial intention indicator are reliable and consistent.

**Table 4.6: Reliability test of EP and entrepreneurial intention indicators**

Factors	EP and entrepreneurial intention indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
ATE	EP1: Being an entrepreneur implies more advantages than disadvantages to me.	.511	.915
	EP2: A career as an entrepreneur is attractive to me.	.802	.908
	EP3: If I had the opportunity and resources, I would like to start a firm.	.747	.911
	EP4: Being an entrepreneur would entail great satisfaction for me.	.694	.911
	EP5: Among various options, I would rather be an entrepreneur.	.583	.913
SN	EP6: I believe that people think I should pursue a career as an entrepreneur.	.590	.913

Factors	EP and entrepreneurial intention indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
	EP7: My friends see entrepreneurship as a logical choice for me.	.615	.913
	EP8: My parents or family member(s) are entrepreneurs or are positively orientated towards a career as entrepreneurs.	.448	.918
PBC	EP9: To start a firm and keep it working would be easy for me.	.502	.915
	EP10: I am prepared to start a viable firm.	.719	.910
	EP11: I can control the creation process of a new firm.	.719	.911
	EP12: I know how to develop an entrepreneurial project.	.637	.912
	EP13: If I tried to start a firm, I would have a high probability of succeeding.	.388	.917
	EP14: When I make plans, I am almost certain I can make them work.	.587	.914
LoC	EP15: I have enough control over the direction of my life.	.439	.916
	EP16: Whether or not I am successful in life depends mostly on my ability.	.537	.915
	EP17: When I travel, I tend to take new routes.	.623	.913
RTP	EP18: I can take risks with my money, such as investing in stocks.	.580	.914
	EP19: I like to try new foods, new places, and totally new experiences.	.778	.913
	EP20: I have taken a risk in the last six months.	.442	.917

(d) *ES reliability test*

The overall Cronbach's alpha of the ES indicator is .975; the variables of ES are therefore reliable and consistent.

**Table 4.7: Reliability test of the ES indicator**

Factors	ES indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
Start-up skills (SUS)	ES1: I plan for growth in current and future terms.	.529	.975
	ES2: I develop novel ideas and products.	.666	.975
	ES3: I take risks to make and implement decisions.	.578	.975
	ES4: I identify opportunities to create an entrepreneurial venture.	.785	.974
Business management skills	ES5: I identify opportunities to create an entrepreneurial venture.	.761	.974
	ES6: I plan and organise tasks to run the business daily.	.688	.974
	ES7: I make decisions to run the business daily.	.741	.974
Marketing skills	ES8: I conduct market research.	.793	.974
	ES9: I monitor and benchmark businesses like the one I run.	.781	.974
	ES10: I position the business in the suitable market.	.851	.974
Financial management skills (FMS)	ES11: I set suitable prices for products or services.	.822	.974
	ES12: I manage cash transactions coming in and out of the business.	.801	.974

Factors	ES indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
	ES13: I determine the cost structure for activities performed by the business.	.841	.974
	ES14: I read and analyse the financial statements.	.732	.974
Human resource management skills (HRMS)	ES15: I recruit and employ the right employees to work in the business activities assigned to them.	.810	.974
	ES16: I evaluate the employees' level of skills to execute tasks.	.797	.974
	ES17: I design the job descriptions for the employees.	.823	.974
	ES18: I conduct performance management with the employees.	.737	.974
	ES19: I implement policies on the remuneration of employees.	.775	.974
Technical skills	ES20: I use skills specific to the business' industry.	.655	.975
	ES21: I develop either physical or service products.	.840	.974
	ES22: I manage the production processes of the products.	.767	.974
	ES23: I assess the quality of the produced products according to industry requirements/standards.	.808	.974
Leadership skills	ES24: I encourage and bring the best out in employees.	.798	.974
	ES25: I share the business' vision and mission with the employees.	.780	.974
	ES26: I encourage employees to excel.	.785	.974
Social and interpersonal skills (SIS)	ES27: I care about the emotional wellbeing of others.	.572	.975
	ES28: I communicate purposefully with all stakeholders.	.742	.974
	ES29: I listen attentively to others.	.528	.975
	ES30: I build trustworthy relationships with stakeholders.	.732	.974
	ES31: I engage well with different cultures.	.450	.975

(e) *Entrepreneurial intention reliability test*

The overall Cronbach's alpha of entrepreneurial intention indicator is .892; the variables are thus reliable and consistent.

**Table 4.8: Reliability test of the EI indicator**

EI indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
EI1: I have engaged in a deliberate, systematic search for an idea for a new business.	.693	.876
EI2: I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.	.615	.885
EI3: I have discussed ideas for a new business with my friends and family.	.568	.890
EI4: I have had discussions with existing suppliers or distributors.	.747	.871
EI5: I have had discussions with potential or existing customers.	.739	.872
EI6: I have taken some classes or seminars on how to start a new business.	.511	.893
EI7: I (alone or with others) have tried to define products or services for the business.	.793	.867

EI indicator	Corrected item-total correlation	Cronbach's alpha if item deleted
EI8: I have devoted significant time to this business idea.	.730	.874

### 4.2.3 Pilot study conclusion

After all the tests were done, the following recommendations were suggested and taken into consideration when going to the field and collecting the final data:

- Country of origin (birth): All respondents selected South Africa. If any of the programmes ran in countries other than South Africa, consider asking for the country where the programmes were developed; otherwise, exclude the variable.
- Name of the city: The variable skewed towards Johannesburg. If the programmes are running in areas other than Johannesburg, then it may need to be kept; otherwise, exclude the variable.
- Province: The variable skewed towards Gauteng.
- The pilot study indicated that most of the respondents were trained by YLED; efforts should therefore be made to ensure that JASA is equally represented in the study for an inclusive EI case.
- Questionnaire distribution did not follow proportional sampling method. Respondents trained in 2013 were not included and some years seemed to exceed their quota of 8%. It is recommended that a simple random sample be followed and that groups be derived from the study period.
- Internal LoC: For “My life is determined by my own actions, not by others or by chance”, all respondents answered “yes”. Variables without variance will be excluded from further analysis.
- Employment status can be followed by entrepreneur status. Some variables assume that the respondents had experience; however, only three out of 35 respondents were entrepreneurs.
- Variables under the IC indicator yielded an insignificant Cronbach's alpha. A low alpha value could be due to a low number of questions, poor inter-relatedness between items, or heterogeneous constructs. To that end, the researcher decided to test the variable further.

### 4.3 CONCLUSION

This chapter discussed the research process. It further highlighted the research paradigm, research philosophy, and research design. It also highlighted the instruments that were used for data collection and took stock of the pilot study results.

Quantitative research uses measurable data to formulate facts and discover relationships in research, which were also discussed, as well as all the statistical measures that were used.

The pilot research results showed that the survey questions were clear and understandable, and that the questions measured the intended constructs with a high degree of reliability. The low Cronbach's alpha of the moderating IC variable suggested that the questions may need to be revised or rephrased in order to improve reliability.

The results of the pilot study were important as they provided valuable insights into the overall validity of the research instrument and informed any necessary revisions to be made before conducting the full research study. This step helped to increase the overall quality and credibility of the research and its findings.

## CHAPTER 5: RESULTS: FULL STUDY

### 5.1 INTRODUCTION

This chapter presents the results of this study regarding the impact of EI on the entrepreneurial intentions of young people. The chapter begins with a description of the demographic information of the sample, including the age, gender, education level, etc. of the participants. Thereafter the variables used in the analysis are examined and analysed, including the measures of entrepreneurial intentions and the impact of the EI. Factor analysis was conducted to identify underlying factors that may affect entrepreneurial intentions. Finally, the results of the hypothesis testing are presented, which sought to test the relationship between the variables.

The aim of the study was to determine the influence of EIs on South African youths and the ES that can help them make informed decisions regarding whether they would pursue entrepreneurship as a career and life choice.

A sample of 165 participants were recruited from the population of 1 100 former EI participants and they were asked to complete a survey. The data collected were analysed using descriptive statistics, factor analysis, and hypothesis analysis and the results are presented in the form of tables, charts, and statistical analyses. The findings of this study provide valuable insights into the impact of EI on young people's entrepreneurial intentions.

### 5.2 DATA PROFILE

**Table 5.1: Summary of data cleaning and statistical analysis**

<b>Data cleaning</b>	<b>Counts</b>
Number of columns	78
Number of rows (excluding the titles)	165
Number of rows deleted	2 (95% empty)
Number of missing values in the file	222
Number of columns affected by missing values	57
Number of duplicates	0
<b>Data formats</b>	
Number of columns with text only	10
Number of columns with text and numerical combined	0
Number of columns with date format	0
<b>Statistical test performed</b>	
Descriptive statistics	Yes
ANOVA	Yes
Chi-square	Yes
Logistics	No
Regression	Yes
Factor analysis	Yes
Other: Multiple regression analysis	

Table 5.1 presents information about the data-cleaning process and statistical tests conducted for the study. The table includes information about the number of columns and rows in the dataset, as well as the number of rows deleted due to being 95% empty, the number of missing values in the file, and the number of columns affected by missing values.

The table also provides information about the data formats used in the dataset, with 10 columns containing text only and no columns containing text and numerals combined or date formats. Additionally, the table notes the statistical tests that were performed, including descriptive statistics, ANOVA, chi-square, and multiple regression analysis.

Overall, this table is presented to provide an overview of the data-cleaning process and statistical tests performed in the study, which can help readers to better understand the results and conclusions drawn from the analysis.

### **5.3 DATA QUALITY ASSESSMENT**

#### **5.3.1 Research objective**

The main research question of this study was: What is the influence of EIs on the entrepreneurial intention of the youth?

The research variables were as follows:

- Independent variables: EP, ES and EP & ES
- Dependent variable: entrepreneurial intention.

The following null hypotheses were formulated:

- H<sub>1</sub>: EP has no impact on entrepreneurial intentions.
- H<sub>2</sub>: ES have no impact on entrepreneurial intentions.
- H<sub>3</sub>: EP and ES have no impact on entrepreneurial intentions.

#### **5.3.2 Data cleaning**

A new categorical variable called clusters was created with the following levels derived from the programme year:

- Cohort 1: 2008 to 2011
- Cohort 2: 2012 to 2015
- Cohort 3: 2016 to 2019

Due to limited observations/respondents, clustering was created for the purpose of descriptive analysis. Future research and recommendations may include testing the main research objective by clusters. These clusters are referred to as cohorts in the descriptive analysis.

Two participants did not answer 95% of the questions and were therefore excluded from the analysis.

Two hundred and twelve missing values were identified out of a possible 12 870 answers (2%) from 57 variables. All the missing values were within the range of  $(Q1 - 1.5 * IQR, Q3 + 1.5 * IQR)$ . (NB IQR = Inter Quartal Range).

## **5.4 DATA CODING**

### **5.4.1 Dependent and independent variables**

Four constructs were measured using a five-point Likert scale, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

**Table 5.2: EI instrument**

Construct	Sub-construct	Variable name	Research question
IC indicator		ICV01	I have the required knowledge and skills to start a business.
		ICV02	There are good opportunities to start a business in the area where I live.
		ICV03	I know someone who started a firm in the past two years.
		ICV04	Self-confidence: Generally, when facing difficult tasks, I am certain that I will accomplish them.
		ICV05	Internal LoC: My life is determined by my own actions, not by others or by chance.
		ICV06	Proactiveness: If I see something I do not like, I change it.
		ICV07	I have some prior experience in owning and managing a business.
SECTION C: EP	ATE	SC-ATE-V01	Being an entrepreneur implies more advantages than disadvantages to me.
		SC-ATE-V02	A career as an entrepreneur is attractive to me.
		SC-ATE-V03	If I had the opportunity and resources, I would like to start a firm.
		SC-ATE-V04	Being an entrepreneur would entail great satisfaction for me.
		SC-ATE-V05	Among various options, I would rather be an entrepreneur.
	SN	SC-SN-V01	I believe that people think I should pursue a career as an entrepreneur.
		SC-SN-V02	My friends see entrepreneurship as a logical choice for me.
		SC-SN-V03	My parents or family member(s) are entrepreneurs or are positively orientated towards a career as an entrepreneur.
	PBC	SC-PBC-V01	To start a firm and keep it working would be easy for me.
		SC-PBC-V02	I am prepared to start a viable firm.
		SC-PBC-V03	I can control the creation process of a new firm.
		SC-PBC-V04	I know how to develop an entrepreneurial project.
		SC-PBC-V05	If I tried to start a firm, I would have a high probability of succeeding.
		SC-PBC-V06	When I make plans, I am almost certain I can make them work.
	LoC	SC-LoC-V01	I have enough control over the direction of my life.
		SC-LoC-V02	Whether or not I am successful in life depends mostly on my ability.
		SC-LoC-V03	When I travel, I tend to take new routes.
	RTP	SC-RPT-V01	I can take risks with my money, such as investing in stocks.
		SC-RPT-V02	I like to try new foods, new places, and totally new experiences.
		SC-RPT-V03	I have taken a risk in the last six months.

Construct	Sub-construct	Variable name	Research question
SECTION D: ES	SUS	ES-SUS-V01	I plan for growth in current and future terms.
		ES-SUS-V02	I develop novel ideas and products.
		ES-SUS-V03	I take risks to make and implement decisions.
		ES-SUS-V04	I identify opportunities to create an entrepreneurial venture.
	Business management skills	ES-BMS-V01	I identify opportunities to create an entrepreneurial venture.
		ES-BMS-V02	I plan and organise tasks to run the business daily.
		ES-BMS-V03	I make decisions to run the business daily.
	Marketing skills	ES-MS-V01	I conduct market research.
		ES-MS-V02	I monitor and benchmark businesses like the one I run.
		ES-MS-V03	I position the business in a suitable market.
	FMS	ES-FMS-V01	I set suitable prices for products or services.
		ES-FMS-V02	I manage cash transactions coming in and out of the business.
		ES-FMS-V03	I determine the cost structure for activities performed by the business.
		ES-FMS-V04	I read and analyse the financial statements.
	HRMS	ES-HRMS-V01	I recruit and employ the right employees to work in the business activities assigned to them.
		ES-HRMS-V02	I evaluate the employees' level of skills to execute tasks.
		ES-HRMS-V03	I design the job descriptions for the employees.
		ES-HRMS-V04	I conduct performance management with the employees.
		ES-HRMS-V05	I implement policies on the remuneration of employees.
	Technical skills	ES-TS-V01	I use skills specific to the business industry.
		ES-TS-V02	I develop either physical or service products.
		ES-TS-V03	I manage the production processes of the products.
		ES-TS-V04	I assess the quality of the produced products according to industry requirements/standards.
	Leadership skills	ES-LS-V01	I encourage and bring the best out in employees.
		ES-LS-V02	I share the business' vision and mission with the employees.
		ES-LS-V03	I encourage employees to excel.
	SIS	ES-SIS-V01	I care about the emotional wellbeing of others.
		ES-SIS-V02	I communicate purposefully with all stakeholders.
		ES-SIS-V03	I listen attentively to others.
		ES-SIS-V04	I build trustworthy relationships with stakeholders.
ES-SIS-V05		I engage well with different cultures.	

Construct	Sub-construct	Variable name	Research question
SECTION E: ENTREPRENEURIAL INTENTION INDICATOR		E-Int-V01	I have engaged in a deliberate, systematic search for an idea for a new business.
		E-Int-V02	I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.
		E-Int-V03	I have discussed ideas for a new business with my friends and family.
		E-Int-V04	I have had discussions with existing suppliers and distributors.
		E-Int-V05	I have had discussions with potential or existing customers.
		E-Int-V06	I have taken some classes or seminars on how to start a new business.
		E-Int-V07	I (alone or with others) have tried to define products or services for the business.
		E-Int-V08	I have devoted significant time to this business idea.

## 5.5 STATISTICAL ANALYSIS: DEMOGRAPHICS

Table 5.3 presents the demographic characteristics of participants in EI programmes in South Africa from 2008 to 2019. The purpose of presenting this information is to provide a better understanding of the profile of participants who were enrolled in these programmes, and to identify any trends that may have emerged over time.

**Table 5.3: Demographical characteristics of the participants**

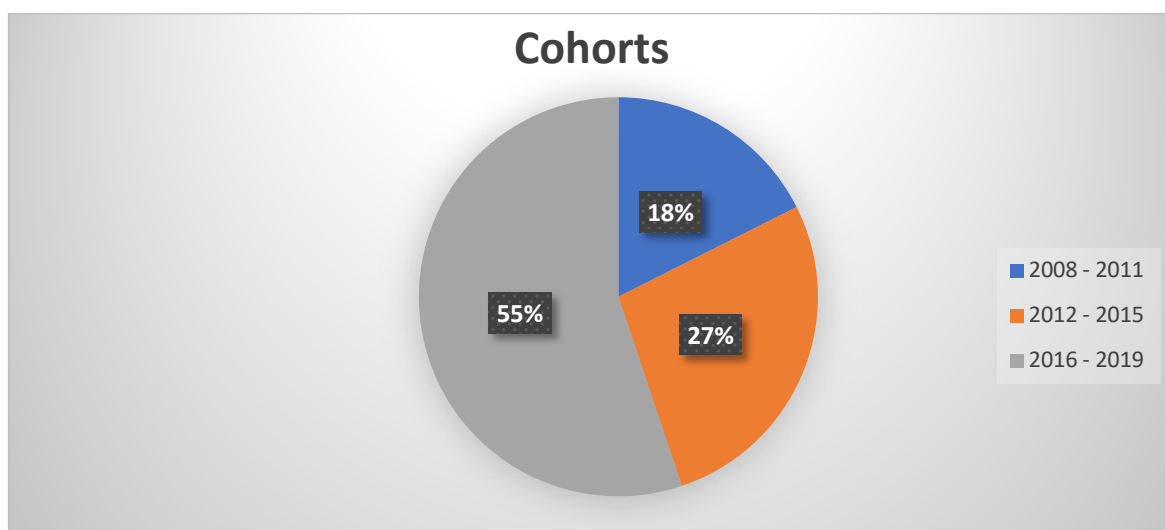
Descriptions	2008-2011 (n = 29) (n, row %)	2012-2015 (n = 45) (n, row %)	2016-2019 (n = 91) (n, row %)	Total (N = 165) (n, col. %)
<b>Programme name</b>				
LSM programme	15 (83%)	1 (6%)	2 (11%)	18 (11%)
MEP	8 (15%)	6 (11%)	39 (74%)	53 (32%)
YLED programme	6 (7%)	38 (42%)	47 (52%)	91 (55%)
Missing	(0%)	(0%)	3 (100%)	3 (2%)
<b>Institution name</b>				
JASA	6 (10%)	9 (16%)	43 (74%)	58 (35%)
YLED	23 (22%)	36 (34%)	46 (44%)	105 (64%)
Missing	(0%)	(0%)	2 (100%)	2 (1%)
<b>Age group</b>				
18-21	1 (1%)	1 (1%)	68 (97%)	70 (42%)
22-29	4 (6%)	44 (64%)	21 (30%)	69 (42%)
30-34	24 (96%)	(0%)	1 (4%)	25 (15%)
Missing	(0%)	(0%)	1 (100%)	1 (1%)
<b>Gender</b>				
Female	19 (17%)	31 (27%)	63 (56%)	113 (68%)
Male	10 (19%)	14 (27%)	28 (54%)	52 (32%)
<b>Race</b>				
Asian	(0%)	1 (50%)	1 (50%)	2 (1%)
Black	25 (19%)	36 (27%)	72 (54%)	133 (81%)
Coloured	3 (18%)	6 (35%)	8 (47%)	17 (10%)
Indian	1 (9%)	1 (9%)	9 (82%)	11 (7%)
White	(0%)	1 (50%)	1 (50%)	2 (1%)
<b>Education</b>				
Certificate	2 (13%)	6 (40%)	7 (47%)	15 (9%)
Grade 12	6 (16%)	8 (22%)	23 (62%)	37 (22%)
Other	(0%)	3 (60%)	2 (40%)	5 (3%)
Postgraduate	15 (38%)	17 (44%)	7 (18%)	39 (24%)
Undergraduate	5 (7%)	11 (16%)	51 (76%)	67 (41%)
Missing	1 (50%)	(0%)	1 (50%)	2 (1%)
<b>Employment</b>				
Employed and entrepreneur	2 (22%)	5 (56%)	2 (22%)	9 (5%)
Employed	21 (34%)	27 (44%)	14 (23%)	62 (38%)
Self-employed	4 (29%)	5 (36%)	5 (36%)	14 (8%)
Unemployed	1 (2%)	2 (3%)	57 (95%)	60 (36%)
Other	(0%)	6 (33%)	12 (67%)	18 (11%)
(Blank)	1 (50%)	(0%)	1 (50%)	2 (1%)

The study's sample frame was composed of 165 students aged 18 to 35 who attended YLED and JASA programmes from 2008 to 2019, with a population of 1 100. The sample was collected within three months. The LSM programme data (given that in the data it was listed as a separate programme) were integrated into YLED as the programme changed its name from LSM to YLED in 2012, but its objectives remained the same.

Using descriptive analysis, the demographic variables were analysed based on the enrolment periods of the cohorts.

The demographic variables were analysed based on enrolment cohorts. Fifty-five percent of the sample (91/165) was from the third cohort (2016-2019), 27% of the sample (45/165) was from the second cohort (2012-2015), and 18% of the sample (29/165) was from the first cohort (2008-2011). The majority (55%) of the respondents were born in South Africa and based in Gauteng, Johannesburg.

**Figure 5.1: Categorising the participants by cohorts**



Fifty-five percent of respondents went through the YLED programme, while 32% went through the MEP, with 11% having graduated from the LSM programme. Sixty-four percent of the respondents came from the YLED institution. The age groups were equally split between 18 to 29 and 22 to 29, while 15% were in the 30 to 34 age group.

Sixty-eight percent of the respondents were female, 81% were black, 10% were coloured, 7% were Indian, 2% were white, and 2% were Asian. Forty-one percent had an undergraduate degree, 24% had a postgraduate degree, and 22% had a high school certificate. The sample represents marginalised groups in South Africa.

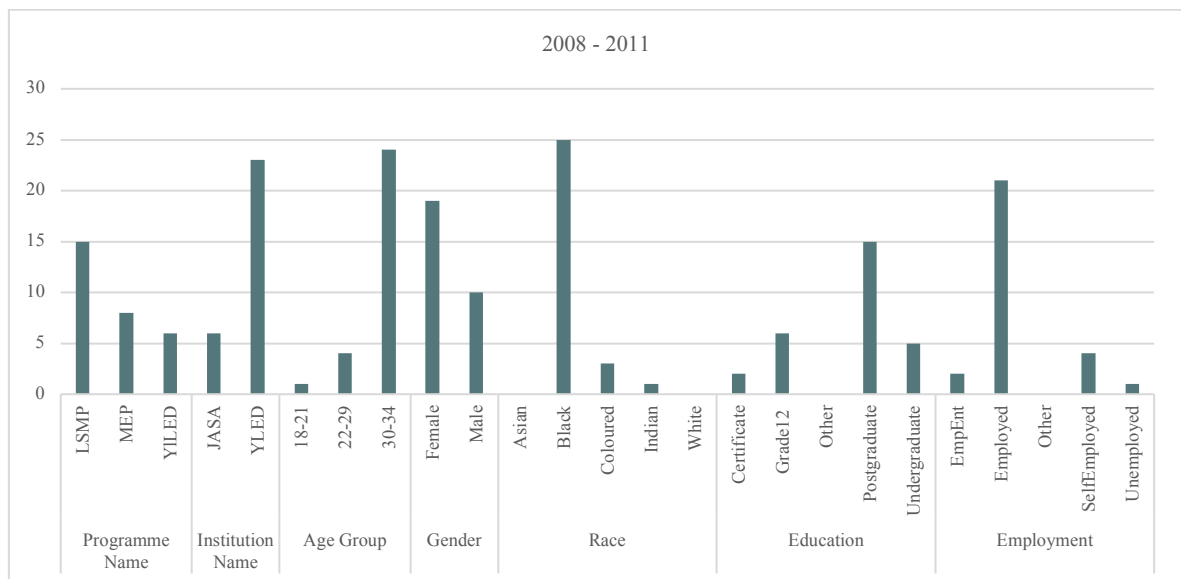
The unemployed respondents made up 95% of the third cohort. This high percentage of unemployed respondents in the third cohort can be attributed to the fact that many were still in higher education after completing high school.

Of the respondents, 38% were employed, 5% were both employed and entrepreneurs, with 8% being entrepreneurs only. In addition, 36% of the respondents were classified as unemployed due to being in institutions of higher learning, while 12% were comprised of unspecified respondents.

The first cohort had 29 participants who entered the programme between 2008 and 2011. In this cohort:

- 51% of them went through the LSM programme, 28% were trained by JASA, and 21% by YLED.
- Most (24 of 29) participants were aged between 30 and 34 years.
- It is the largest cohort with a fair split of males and females.
- 86% of the participants were from black communities and 10% from coloured communities.
- 52% had a postgraduate qualification and 21% had senior certificates, while 21 participants were employed, four were self-employed, and two were both employed and entrepreneurs.

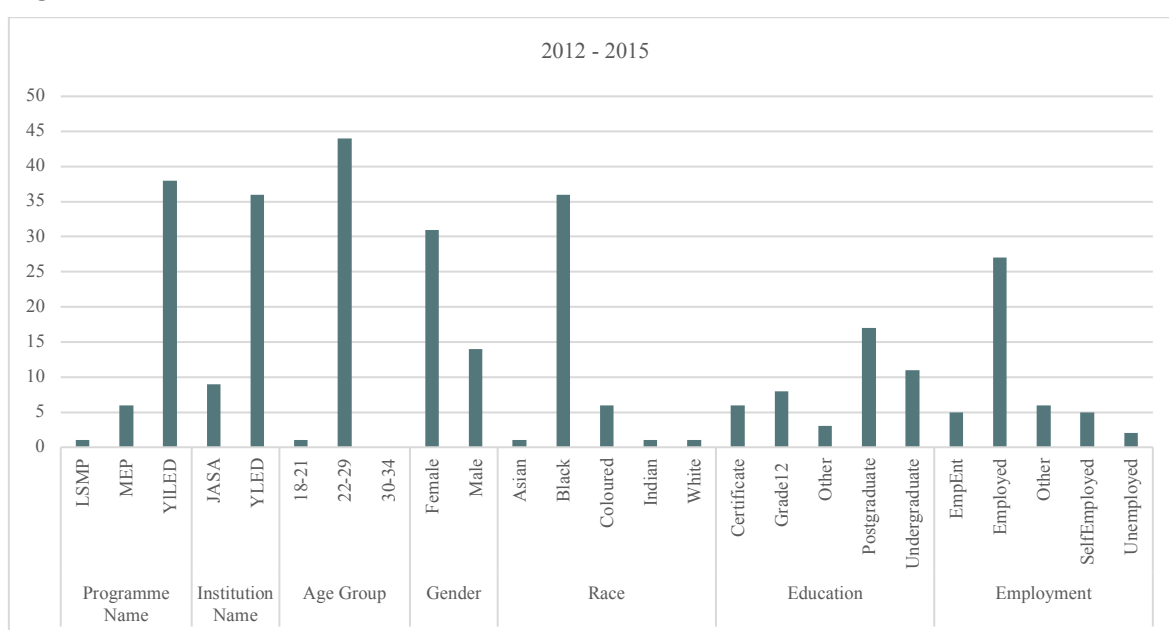
**Figure 5.2: Cohort 1**



The second cohort had 45 respondents enrolled between 2012 and 2015. In this cohort:

- 38 of them went through the YLED programme, one through the LSM, and six through JASA.
- Most participants were trained by YLED and were aged 22 to 29.
- This cohort had more females (69%) and more coloured participants (6%).
- The education level was mainly postgraduate (38%), followed by undergraduate (11%).
- It had the highest number of employed participants (60%).

**Figure 5.3: Cohort 2**

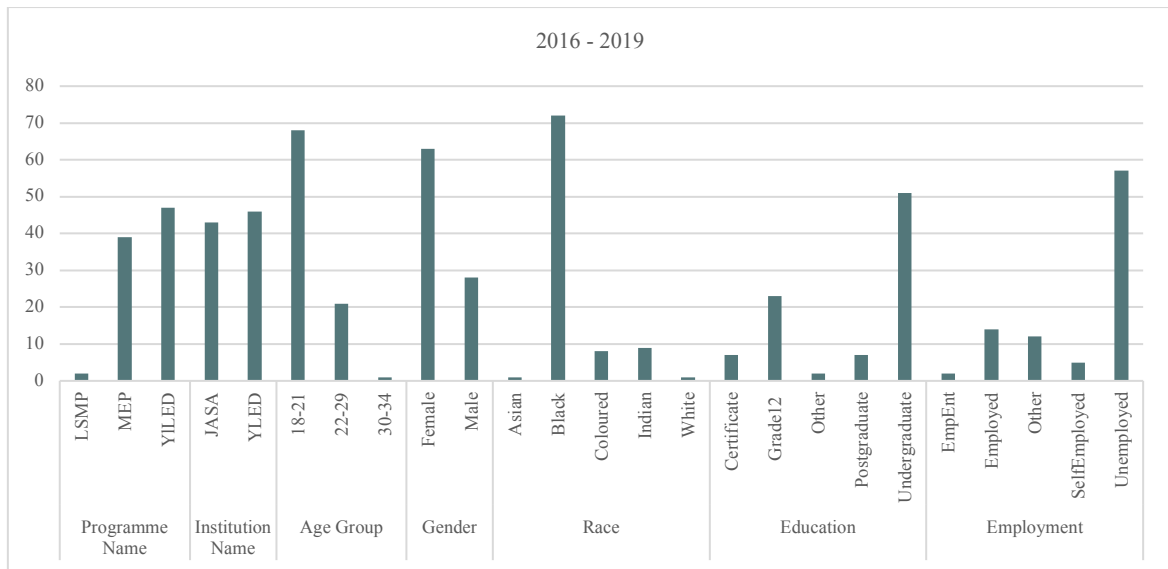


The third cohort had 91 respondents enrolled between 2016 and 2019. In this cohort:

- There was a greater proportion of participants in the MEP and the YLED programme than other cohorts. This cohort also had the highest proportion of participants in the YLED programme (52%).
- The majority of JASA respondents (43%) were enrolled in Cohort 3; the distribution of JASA and YLED institutions is nearly identical (43 and 46 respectively).
- The majority of respondents in this cohort were aged 18 to 21 (68%) and were female (69%).

- The largest racial group was black Africans, followed by Indian and coloured people.
- 51 respondents had a bachelor’s degree and 23 had a Grade 12 education. Fifty-seven respondents were unemployed, while 14 were employed, with the lowest proportion of self-employed or entrepreneurs among all cohorts.

**Figure 5.4: Cohort 3**



## 5.6 ANALYSING THE VARIABLES

### 5.6.1 Intellectual Capital (IC)

The average Cronbach’s alpha for the IC indicator during the piloting and data-collection phase was 0.298, which was lower than the desired value of 0.7, which indicates inconsistent and unreliable responses. As a result, IC was not used as a moderator and was only analysed using descriptive statistics.

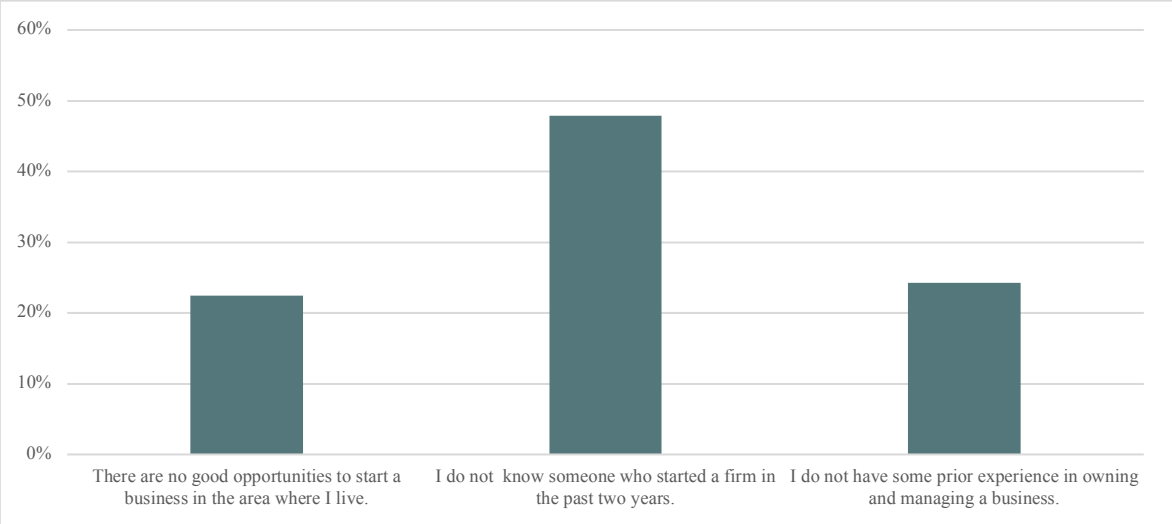
**Table 5.4: Summary of responses to the IC survey questions**

IC	Yes	No	None of the above
I have the required knowledge and skills to start a business.	155 (94%)	9 (5%)	1 (1%)
There are good opportunities to start a business in the area where I live.	128 (78%)	37 (22%)	(0%)
I know someone who started a firm in the past two years.	86 (52%)	79 (48%)	(0%)
Self-confidence: Generally, when facing difficult tasks, I am certain that I will accomplish them.	158 (96%)	7 (4%)	(0%)
Internal LoC: My life is determined by my own actions, not by others or by chance.	160 (97%)	5 (3%)	(0%)
Proactiveness: If I see something I do not like, I change it.	158 (96%)	7 (4%)	(0%)

I have some prior experience in owning and managing a business.	113 (68%)	40 (24%)	12 (7%)
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It can be observed from Table 5.4 that the majority (94%) of the respondents had the necessary knowledge and skills to start a business and were confident in their ability to tackle difficult tasks. However, 22% felt there were limited opportunities in their area for starting a business and 48% did not have a connection to someone who recently started a business. Additionally, 24% lacked prior experience in managing a business (see Figure 5.5).

**Figure 5.5: Negative sentiments regarding the IC indicator**



**5.6.2 EP**

The EP construct was measured using the following five sub-constructs:

- ATE, with five questions;
- SN, with three questions;
- PBC, with six questions;
- LoC, with three questions; and
- RTP, with three questions.

**Table 5.5: Summary of responses to the EP survey questions**

	Statement	Strongly Disagree	Disagree	Neither/ Nor	Agree	Strongly Agree	Bar Graph
ATE	Being an entrepreneur implies more advantages than disadvantages to me.	0	2	26	66	71	
	A career as an entrepreneur is attractive to me.	0	3	19	58	85	
	If I had the opportunity and resources, I'd like to start a firm	0	4	9	44	108	
	Being an entrepreneur would entail great satisfaction for me	0	2	11	53	99	
	Among various options, I would rather be an entrepreneur	1	6	22	67	69	
SN	I believe that people think, I should pursue a career as an entrepreneur	0	12	40	57	55	
	My friends see entrepreneurship as a logical choice for me	0	9	51	54	50	
	My parents or family member(s) are entrepreneurs or are positively oriented towards a career as entrepreneurs.	3	22	35	58	46	
PBC	To start a firm and keep it working would be easy for me	2	14	58	63	27	
	I am prepared to start a viable firm	1	10	32	72	49	
	I can control the creation process of a new firm	0	5	30	89	40	
	I know how to develop an entrepreneurial project.	1	11	14	87	51	
	If I tried to start a firm, I would have a high probability of succeeding	1	38	74	50	2	
	When I make plans I am almost certain I can make them work	1	1	7	80	74	
LoC	I have enough control over the direction of my life	3	15	74	71	2	
	Whether or not I am successful in life depends mostly on my ability	2	2	13	67	79	
	When I travel I tend to take new routes	2	16	25	65	55	
RTP	I can take risks with my money, such as investing in stocks	1	16	31	60	55	
	I like to try new foods, new places, and totally new experiences	1	0	4	41	117	
	I have taken a risk in the last six months	1	16	16	55	75	

Table 5.5 shows the frequencies of responses for each question within the five-point Likert scale survey on entrepreneurial intentions.

- ATE: Under this sub-construct, 66% of the respondents showed a positive sentiment towards entrepreneurship and 16% were indifferent.
- SN: This sub-construct showed that the majority of the respondents had positive sentiments towards entrepreneurship, with a skewed response towards “strongly agree” and “agree”. However, there was also a good number of respondents who were indifferent.
- PBC: This sub-construct had fewer respondents showing a strong agreement, with the majority being indifferent about their probability of success in starting a

firm. However, most respondents agreed that they have control over the direction of their life and that success depends on their ability.

- LoC: In this sub-construct, the highest number of respondents indicated that they are not sure if they have enough control over the direction of their life and 15 of the respondents indicated that they do not have control over the direction of their life, however, the highest 79 out of 165 indicated that their success in life depends mostly on their ability.
- RTP: In this sub-construct, the majority of respondents showed a willingness to take risks in new experiences and activities.

EP skills reliability: This construct showed a strong consistency, with a Cronbach's alpha reliability test result of 89.5%. Further analysis through principal component factor analysis was applied to reduce the dimensions of the construct.

### **5.6.3 Entrepreneurial Skills (ES)**

The ES constructs are made up of eight sub-constructs. Table 5.6 shows the frequencies of responses for each question in the ES construct using a five-point Likert scale.

**Table 5.6: Summary of responses to the ES survey questions**

		Strongly Disagree	Disagree	Neither/Nor	Agree	Strongly Agree	Bar Graph
Start-up skills	I plan for growth in current and future terms.	0	1	18	75	69	
	I develop novel ideas and products.	1	16	42	69	35	
	I take risks to make and implement decisions.	1	4	32	78	47	
	I identify opportunities to create an entrepreneurial venture.	1	6	23	82	51	
Business management skills	I identify opportunities to create an entrepreneurial venture.	1	6	24	84	47	
	I plan and organise tasks to run the business daily.	1	19	42	67	33	
	I make decisions to run the business daily.	1	14	44	69	35	
Marketing skills	I conduct market research.	2	15	40	64	42	
	I monitor and benchmark businesses like the one I run.	5	21	57	48	30	
	I position the business in the suitable market.	4	14	50	63	29	
Financial management skills	I set suitable prices for products or services.	5	14	36	64	42	
	I manage cash transactions coming in and out of the business.	3	18	42	56	41	
	I determine the cost structure for activities performed by the business.	4	17	46	58	35	
	I read and analyse the financial statements.	2	18	38	60	44	
Human resource management skills	I recruit and employ the right employees to work in the business activities assigned to them.	4	23	48	55	30	
	I evaluate the employees' level of skills to execute tasks.	4	17	43	62	34	
	I design the job descriptions for the employees.	3	24	50	51	31	
	I conduct performance management with the employees.	4	22	47	57	30	
	I implement policies on the remuneration of employees.	5	27	53	47	28	
Technical skills	I use skills specific to the business' industry.	2	17	39	66	35	
	I develop either physical or service products.	6	19	32	66	37	
	I manage the production processes of the products.	4	29	42	50	34	
	I assess the quality of the produced products according to industry requirements/standards.	3	21	42	49	44	
Leadership skills	I encourage and bring the best out in employees.	2	12	42	48	55	
	I share the business' vision and mission with the employees.	1	12	40	54	52	
	I encourage employees to excel.	2	10	38	44	64	
Social and interpersonal skills	I care about the emotional wellbeing of others.	1	2	11	44	101	
	I communicate purposefully with all stakeholders.	2	6	30	56	65	
	I listen attentively to others.	2	3	9	64	82	
	I build trustworthy relationships with stakeholders.	2	6	25	42	84	
	I engage well with different cultures.	2	1	14	55	88	

The eight sub-constructs of ES showed varying levels of agreement among the 165 respondents:

- SUS, with four questions: 50% of the respondents agreed that they had identified opportunities to create an entrepreneurial venture, but 16 respondents disagreed that they could develop novel ideas and products.
- Business management skills, with three questions: 89 of the 165 (54%) respondents agreed that they had identified opportunities to create an

entrepreneurial venture, but 19 of the respondents disagreed that they planned and organised tasks to run the business on a daily basis.

- Marketing skills, with three questions: 29 respondents strongly agreed that they positioned the business in a suitable market, but 21 disagreed that they monitored and benchmarked businesses like the one they operated.
- FMS, with four questions: Most respondents agreed and strongly agreed that they set suitable prices for products or services.
- HRMS, with five questions: 27 of the 165 respondents disagreed that they implemented policies on the remuneration of employees.
- Technical skills, with four questions: Most respondents disagreed and were indifferent when asked about managing the production process and assessing the quality of produced products.
- Leadership skills, with three questions: Most respondents strongly agreed that they encouraged employees to excel and share the business' vision and mission.
- SIS, with five questions: 101 out of the 165 respondents strongly agreed that they cared about the emotional wellbeing of others.

ES reliability: The reliability of the ES construct showed a strong consistency of 96.8% through the Cronbach's alpha test. Principal component factor analysis was applied to reduce the dimensions of the construct.

#### **5.6.4 Entrepreneurial intention**

Eight questions were asked under the entrepreneurial intention construct, as shown in the following table.

**Table 5.7: Summary of responses to the entrepreneurial intention survey questions**

Statement	Strongly Disagree	Disagree	Neither/ Nor	Agree	Strongly Agree	Bar Graph
I have engaged in a deliberate, systematic search for an idea for a new business.	3	14	34	57	50	
I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.	1	5	15	55	83	
I have discussed ideas for a new business with my friends and family.	2	10	18	67	63	
I have had discussions with existing suppliers or distributors.	7	34	36	45	38	
I have had discussions with potential or existing customers.	4	19	31	62	43	
I have taken some classes or seminars on how to start a new business.	3	21	24	55	57	
I (alone or with others) have tried to define products or services for the business.	3	16	28	62	49	
I have devoted significant time to this business idea.	5	13	33	58	50	

These results indicate that 50% of respondents had strong business ideas, 57% had taken business classes, 34% disagreed about having supplier discussions, 36% were indifferent, 33% were indifferent about devoting time to the business idea, and 13% disagreed about devoting time.

The Cronbach’s alpha test showed high reliability (89%) for the entrepreneurial intention construct, which indicates that the questions in the entrepreneurial intention construct were strongly related and measured a consistent construct. To that end, a principal component factor analysis was used to reduce its dimensions. Principal component factor analysis is a statistical method used to simplify complex sets of variables into a smaller number of underlying dimensions or factors. By reducing the dimensions of the entrepreneurial intention construct, the researcher aimed to simplify and better understand the relationships between the variables in the construct.

## 5.7 FACTOR ANALYSIS

Factor analysis is one of the multivariate techniques applied to reduce a large number of variables into a lower number of factors, which will equally represent removed variables. The factor analysis method chosen for this research is the principal component analysis. Principal component analysis creates factors based on the amount of variation they carry within the constructs. The first factor will carry the highest variation and the last factor will

carry the lowest factors. This method is used to identify underlying factors that explain the relationships between variables.

The number of factors to be included in the analysis is determined using the Kaiser criterion, which states that any eigenvalue greater than 1 should be considered a factor.

According to the Kaiser criterion, eigenvalues are a good criterion for determining a factor; as follows:

- If eigenvalues are greater than 1, it should be considered a factor.
- If eigenvalues are less than 1, it should not be considered a factor.

Additionally, the variance extraction rule states that a factor should only be considered if its explained variance is greater than 0.7. These rules help to ensure that the factors included in the analysis are meaningful and explain a significant amount of the variation in the data.

### **5.7.1 Entrepreneurship Personality (EP)**

The chi-square test indicates that the variables included in the analysis of the construct are not correlated. The null hypothesis is rejected at a 0.01 level of significance and the alternative hypothesis that the variables of the constructs are linearly related is accepted.

This means that the results of the chi-square test indicate that the variables included in the analysis of the EP construct are not independent or uncorrelated. The null hypothesis is rejected, which means that there is a significant relationship between the variables. The alternative hypothesis that the variables are linearly related is accepted.

The factor analysis showed that the 20 variables in the EP construct could be reduced to four principal components, which explain a total of 57.423% of the variation in the data (see Table 5.8). This suggests that the four factors captured much of the meaningful information about the EP construct.

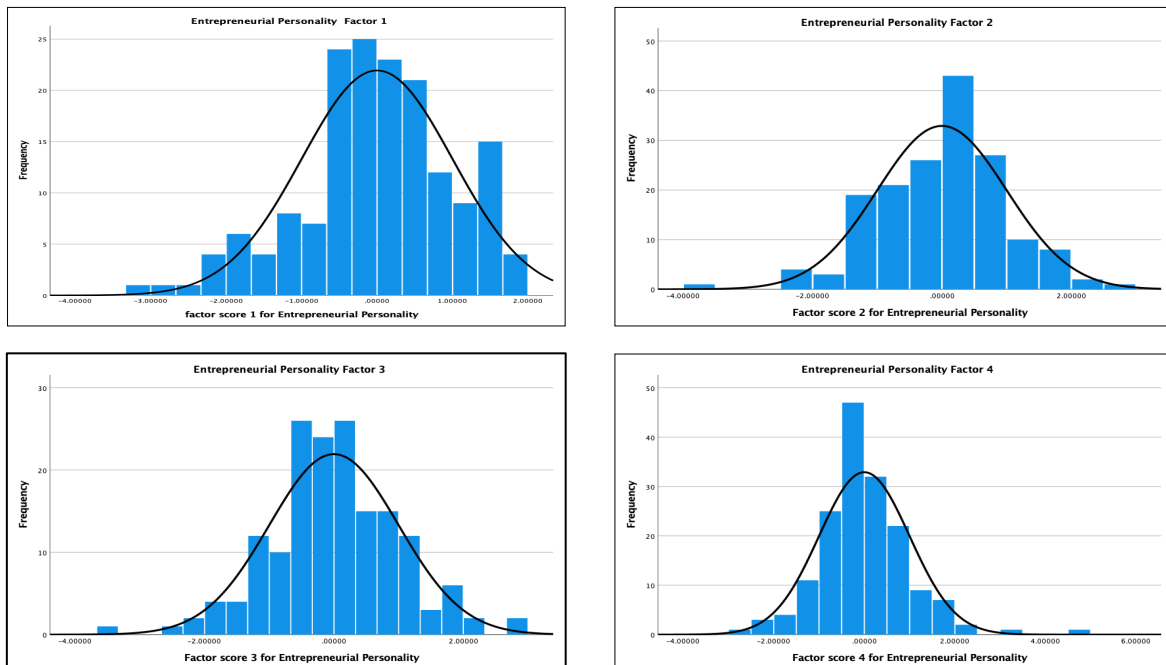
**Table 5.8: Summary of factor analysis outcomes for EP**

	Chi-square value		Degrees of freedom		P-value
Model	297.740		116		0.00
EP factor	Eigenvalue	% of variance	Cumulative %	Skewness	Kurtosis
EP-Attitude and subjective norms (ASN)	7.226	36.128	36.128	-.502	.256
EP-PBC	1.810	9.051	45.179	-.233	.870
EP- LoC	1.316	6.582	51.761	-.021	.932
EP-RTP	1.132	5.662	57.423	.766	3.637

All factors also passed the normality tests where their skewness was between 1 and -1 and the kurtosis was between -5 and 5.

This means that the results of the normality tests indicate that the distribution of the factors was approximately normal. A normal distribution is important in statistical analysis because many assumptions and statistical tests are based on normality. The skewness and kurtosis values being between 1 and -1 and -5 and 5 respectively indicates that the distribution of the factors was relatively symmetrical and not too far from the normal distribution. This supports the validity of the results of the statistical analysis.

**Figure 5.6: Factor analysis outcomes for EP**



### 5.7.1.1 Attitude and subjective norms (ASN)

The first eigenvalue (EP-Factor 1) accounted for the 36.12% variance of the construct. This means that the first factor in the EP construct accounts for 36.12% of the total variance. This factor is made up of variables from both the ATE and SN constructs, with the ATE variable carrying more weight. The factor also includes two variables from the RTP and PBC constructs, with the variable “I can take risks with my money, such as investing in stocks” having a loading of 0.435 and the variable “I am prepared to start a viable firm” having a loading of 0.425.

**Table 5.9: Factor analysis outcomes for ASN**

Variables	Factor loading
Being an entrepreneur would entail great satisfaction for me.	0.849
A career as an entrepreneur is attractive to me.	0.846
If I had the opportunity and resources, I would like to start a firm.	0.751
Among various options, I would rather be an entrepreneur.	0.735
Being an entrepreneur implies more advantages than disadvantages to me.	0.594
I believe that people think I should pursue a career as an entrepreneur.	0.584
My friends see entrepreneurship as a logical choice for me.	0.443
I can take risks with my money, such as investing in stocks.	0.435
I am prepared to start a viable firm.	0.425
My parents or family member(s) are entrepreneurs or are positively orientated towards a career as entrepreneurs.	0.402

### 5.7.1.2 Perceived behavioural control (PBC)

The second factor in the EP construct accounted for 9.051% of the total variance. This factor is made up of all the variables from the PBC construct, with one variable, “My friends see entrepreneurship as a logical choice for me”, from the SN construct included, with a loading of 0.414. It is worth noting that two variables, “I am prepared to start a viable firm” and “My friends see entrepreneurship as a logical choice for me”, were included in both the first and second factors, with the variable “I am prepared to start a viable firm” having a higher loading in the second factor.

**Table 5.10: Factor analysis outcomes for PBC**

Variables	Factor loading
I am prepared to start a viable firm.	0.637
My friends see entrepreneurship as a logical choice for me.	0.414
If I tried to start a firm, I would have a high probability of succeeding.	0.793
To start a firm and keep it working would be easy for me.	0.709
I can control the creation process of a new firm.	0.704
When I make plans, I am almost certain I can make them work.	0.578
I know how to develop an entrepreneurial project.	0.571

### 5.7.1.3 Locus of Control (LoC)

The third factor, EP-Factor 3, represented 6.582% of the total 57.423% variance in the EP construct. It comprised three of the four variables in the LoC construct and one added variable from the SN construct. The added variable, “My friends see entrepreneurship as a logical choice for me”, had a factor loading of 0.446 and was present in Factors 1 to 3 with the highest contribution in Factor 3.

**Table 5.11: Factor analysis outcomes for LoC**

Variables	Factor loading
My friends see entrepreneurship as a logical choice for me.	0.446
Whether or not I am successful in life depends mostly on my ability.	0.727
I have enough control over the direction of my life.	0.712
When I travel, I tend to take new routes.	0.587

### 5.7.1.4 Risk-taking propensity (RTP)

The last factor (EP-Factor 4) contributed 5.662% of the total 57.423% variance in the construct. It consisted of two variables from RTP.

**Table 5.12: Factor analysis outcomes for RTP**

Variables	Factor loading
I like to try new foods, new places, and totally new experiences.	0.765
I have taken a risk in the last six months.	0.689

In summary, the analysis reduced the dimensions of the EP construct from 20 variables to four principal components. The factors are ASN, PBC, LoC, and RTP. These factors explain 57.423% of the total variance in the construct and have passed the normality tests.

## 5.7.2 ES

The results of the chi-square test showed that the variables included in the analysis of the ES construct were linearly related and were not uncorrelated. This conclusion is based on the rejection of the null hypothesis and the acceptance of the alternative hypothesis at a 0.01 level of significance.

The dimensions of the ES construct were reduced from 311 variables to four principal components, which accounted for 69.356% of the total variance in the construct. The first factor accounted for 51.138% of the variance in the construct. The factors included in the analysis were those with eigenvalues greater than 1.

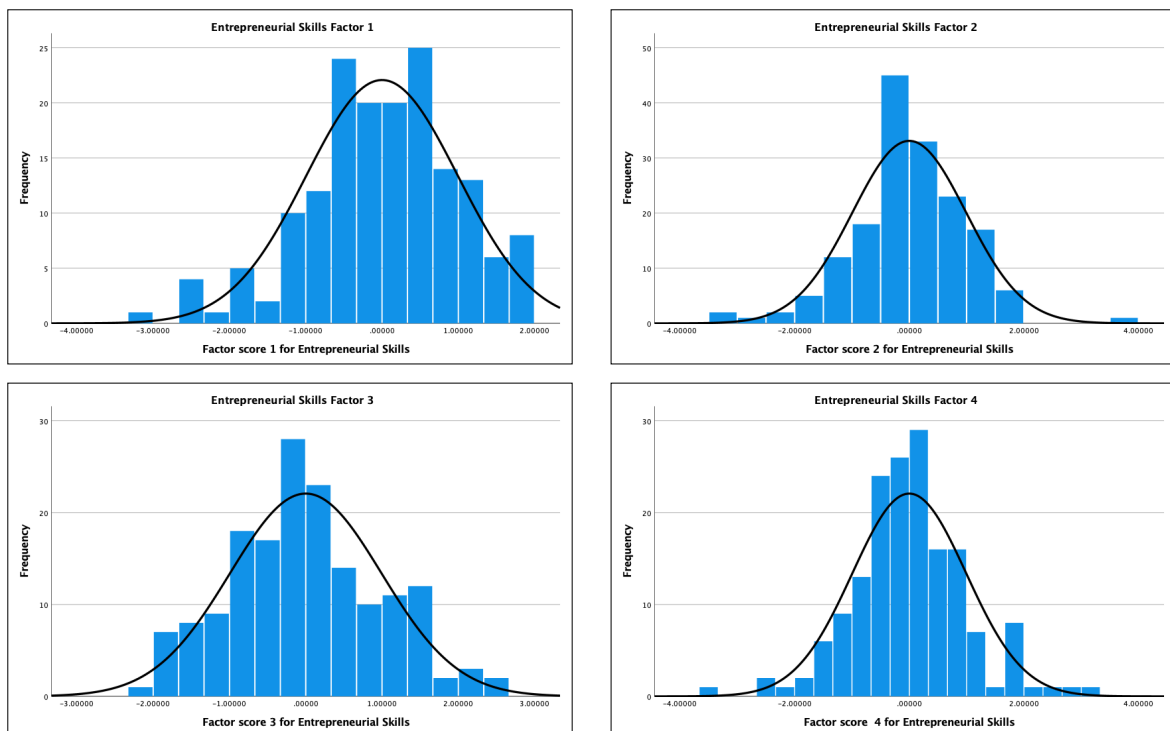
**Table 5.13: Summary of factor analysis outcomes for ES**

	Chi-Sqr		Degrees of freedom		p-Value
Model	977.496		321		<0.001
	Total	% of variance	Cumulative %	Skewness	Kurtosis
ES – Comprehensive business management skills (CBM)	15.853	51.138	51.138	-.514	.322
ES – SIS	2.617	8.442	59.580	-.231	1.641
ES – FMS	1.790	5.776	65.356	.207	-.361
ES – SUS	1.281	4.133	69.489	.071	1.476

All factors also passed the normality tests where their skewness was between 1 and -1 and the kurtosis was between -5 and 5.

The results of the normality tests showed that all the factors had skewness values between 1 and -1 and kurtosis values between -5 and 5. This indicates that the data were normally distributed, which is an assumption in many statistical analysis techniques. A normally distributed data set means that the data points are symmetrically spread out around the mean and that the shape of the distribution is similar to a bell-shaped curve. This is important because many statistical tests assume normality, and having normally distributed data can make the results more reliable and robust.

**Figure 5.7: Factor analysis outcomes for ES**



### 5.7.2.1 *Comprehensive business management skills (CBM)*

The first factor (ES-Factor 1) of the ES construct accounted for 51.138% of the total variance (69.589%) in the construct. It was made up of all variables from the HRMS, technical skills, leadership skills, and FMS constructs, as well as two variables from the marketing skills construct. The two variables from the marketing skills constructs had the lowest contribution (0.429 and 0.425), while the highest contributors come from the HRMS construct, with a minimum contribution of 0.784.

**Table 5.14: Factor analysis outcomes for CBM**

Variables	Factor loading
I conduct performance management with the employees.	0.820
I evaluate the employees' level of skills to execute tasks.	0.805
I implement policies on the remuneration of employees.	0.801
I recruit and employ the right employees to work in the business activities assigned to them.	0.798
I design the job descriptions for the employees.	0.784
I develop either physical or service products.	0.699
I manage the production processes of the products.	0.681
I use skills specific to the business' industry.	0.664
I assess the quality of the produced products according to industry requirements/ standards.	0.641
I encourage and bring the best out in employees.	0.636
I share the business' vision and mission with the employees.	0.632
I determine the cost structure for activities performed by the business.	0.605
I encourage employees to excel.	0.586
I read and analyse the financial statements.	0.583
I manage cash transactions coming in and out of the business.	0.544
I set suitable prices for products or services.	0.467
I position the business in the suitable market.	0.429
I monitor and benchmark businesses like the one I run.	0.425

### 5.7.2.2 *Social and interpersonal skills (SIS)*

The second factor (ES-Factor 2) accounted for 8.442% of the total variance in the ES construct. It was made up of all variables from the leadership skills and SIS constructs. Some of the variables from the leadership skills construct were also present in the first factor (CBM), but some of the variables had higher loadings in the second factor than the first; i.e., the variables “I encourage and bring the best out in employees” and “I share the business' vision and mission with the employees” both had higher loadings in Factor 1 than Factor 2, while the variable “I encourage employees to excel” had a higher loading in Factor 2 than in Factor 1.

All variables from the SIS construct are unique to this factor.

**Table 5.15: Factor analysis outcomes for SIS**

Variables	Factor loading
I encourage and bring the best out in employees.	0.530
I share the business' vision and mission with the employees.	0.577
I encourage employees to excel.	0.593
I listen attentively to others.	0.778
I build trustworthy relationships with stakeholders.	0.753
I care about the emotional wellbeing of others.	0.742
I engage well with different cultures.	0.735
I communicate purposefully with all stakeholders.	0.723

### 5.7.2.3 Financial and marketing skills (FMS)

The third factor (ES-Factor 3) of the ES construct accounted for 5.776% of the total variance in the construct. It was made up of variables from the FMS (excluding one variable: “I read and analyse the financial statements”), marketing skills (excluding one variable: “I conduct market research”) and all variables from the business management skills (excluding one variable: “I identify opportunities to create an entrepreneurial venture”).

Some of these variables are also present in the first factor, but their contribution to this factor was different.

- Having a higher loading in Factor 1 than in Factor 3 and the third variable of FMS: “I determine the cost structure for activities performed by the business.”
- Having a higher loading in Factor 3 – the marketing skills variable: “I position the business in the suitable market.”
- The variable “I monitor and benchmark businesses like the one I run” was also found in the first factor but had higher loadings in the third factor than the first.

**Table 5.16: Factor analysis outcomes for FMS**

Variables	Factor loading
I determine the cost structure for activities performed by the business.	0.526
I manage cash transactions coming in and out of the business.	0.593
I set suitable prices for products or services.	0.665
I position the business in the suitable market.	0.689
I monitor and benchmark businesses like the one I run.	0.652
I make decisions to run the business daily.	0.808
I plan and organise tasks to run the business daily.	0.787

The fourth factor (ES-Factor 4) accounted for 4.133% of the total variance in the construct. It consisted of all variables from the SUS construct and one variable from the business management skills construct. All variables in this factor are unique.

**Table 5.17: SUS factor loadings**

Variables	Factor loading
I identify opportunities to create an entrepreneurial venture.	0.793
I take risks to make and implement decisions.	0.715
I plan for growth in current and future terms.	0.624
I develop novel ideas and products.	0.624

### 5.7.3 Entrepreneurial intention

The results of the chi-square test showed that the variables included in the analysis of the ES construct were not independent from each other. The null hypothesis, which stated that the variables are uncorrelated, was rejected at a 0.01 level of significance, and the alternative hypothesis, which stated that the variables are linearly related, was accepted.

The 311 variables were reduced to four principal components, which accounted for 57.206% of the total variance in the ES construct. The first eigenvalue, or factor, accounted for 51.138% of the variance. All eigenvalues selected were those that had values greater than 1, which means that they had a significant contribution to the overall variance in the construct.

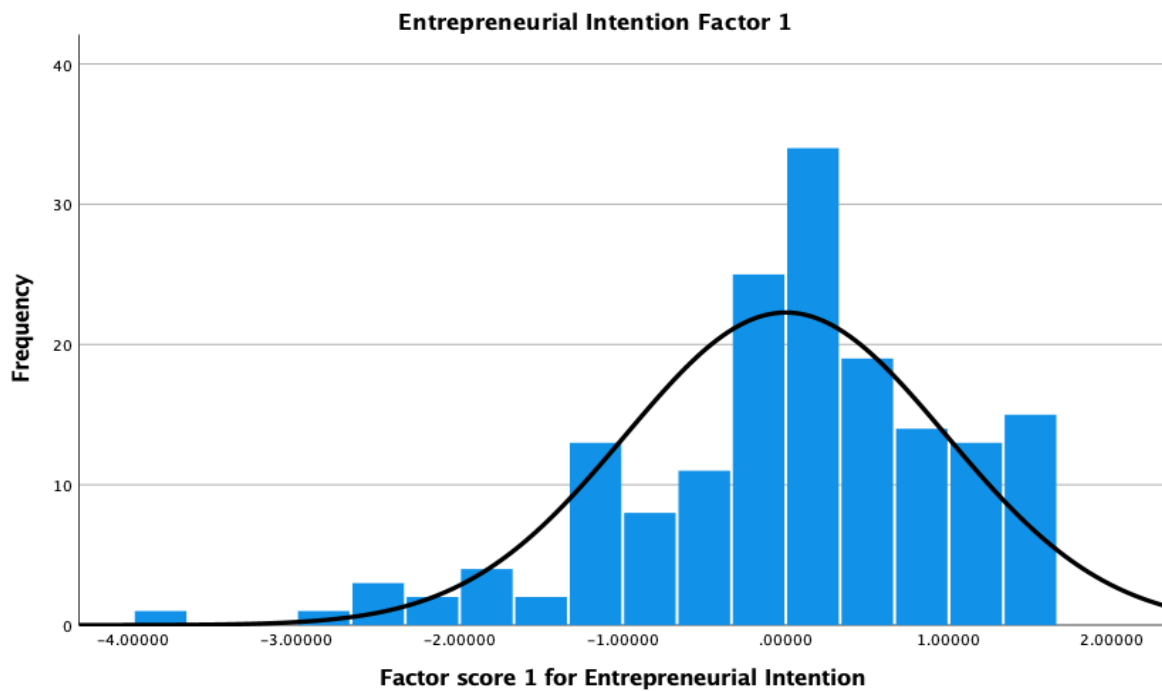
**Table 5.18: Summary of factor analysis outcomes for entrepreneurial intention**

	Chi-square		df		p
Model	71.830		20		<0.001
	<b>Total</b>	<b>% of variance</b>	<b>Cumulative %</b>	<b>Skewness</b>	<b>Kurtosis</b>
EI-Intention	4.576	57.206	57.206	-0.886	1.183

All factors also passed the normality tests where their skewness was between 1 and -1 and the kurtosis was between -5 and 5.

This means that the data of the factors had a normal distribution, which is an important assumption for many statistical tests and analyses. The results of the normality tests (skewness between 1 and -1 and kurtosis between -5 and 5) suggest that the distribution of the data for each factor was approximately symmetrical and did not have any outliers, which is a desirable characteristic for accurate analysis and interpretation.

**Figure 5.8: Factor analysis outcomes for entrepreneurial intention**



The single factor of the entrepreneurial intention construct explains 57.2% of the total variance in the construct. The variable “I have taken some classes or seminars on how to start a new business” had the lowest loading (0.528) in this factor.

**Table 5.19: Factor analysis loading for entrepreneurial intention**

Variables	Factor loading
I have engaged in a deliberate, systematic search for an idea for a new business.	.837
I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.	.762
I have discussed ideas for a new business with my friends and family.	.686
I have had discussions with existing suppliers or distributors.	.765
I have had discussions with potential or existing customers.	.802
I have taken some classes or seminars on how to start a new business.	.528
I (alone or with others) have tried to define products or services for the business.	.800
I have devoted significant time to this business idea.	.824

## 5.8 HYPOTHESIS TESTING

### 5.8.1 Entrepreneurial intention and Entrepreneurship Personality

To test the hypothesis that entrepreneurial intention has or does not have an impact on EP, a linear regression model was used to test the relationships between entrepreneurial intention and all the variables within EP.

ANOVA was used with the regression model to test if the variables entered into the model were completely heterogeneous and related to the dependent variable (entrepreneurial intention). The results of ANOVA indicate that the variables were significantly independent, with a p-value of <0.001 at a 0.01 level of significance.

**Table 5.20: Hypothesis testing: ANOVA outcomes for entrepreneurial intention and EP**

Model	Sum of squares	Df.	Mean square	F	Sig.
Regression	72.052	4	18.013	33.147	<.001
Residual	86.948	160	.543		
Total	159.000	164			

With the reassurance that the variance within the variables of EP and intention is explained, the regression model below tested if each variable in EP was associated with entrepreneurial intention.

The results of the model showed that each variable in EP was significantly associated with entrepreneurial intention. This suggests that EP is a predictor of entrepreneurial intention.

**Table 5.21: Hypothesis testing: Regression outcomes for entrepreneurial intention and EP**

Model	Hypothesis testing			95.0% confidence interval for beta	
	Standardised beta	t	Sig.	Lower bound	Upper bound
(Constant)		.000	1.000	-.113	.113
ASN	.661	11.305	<.001	.537	.764
PBC	-.083	-1.416	.159	-.195	.032
LoC	.063	1.075	.284	-.052	.176
RTP	.075	1.276	.204	-.040	.187

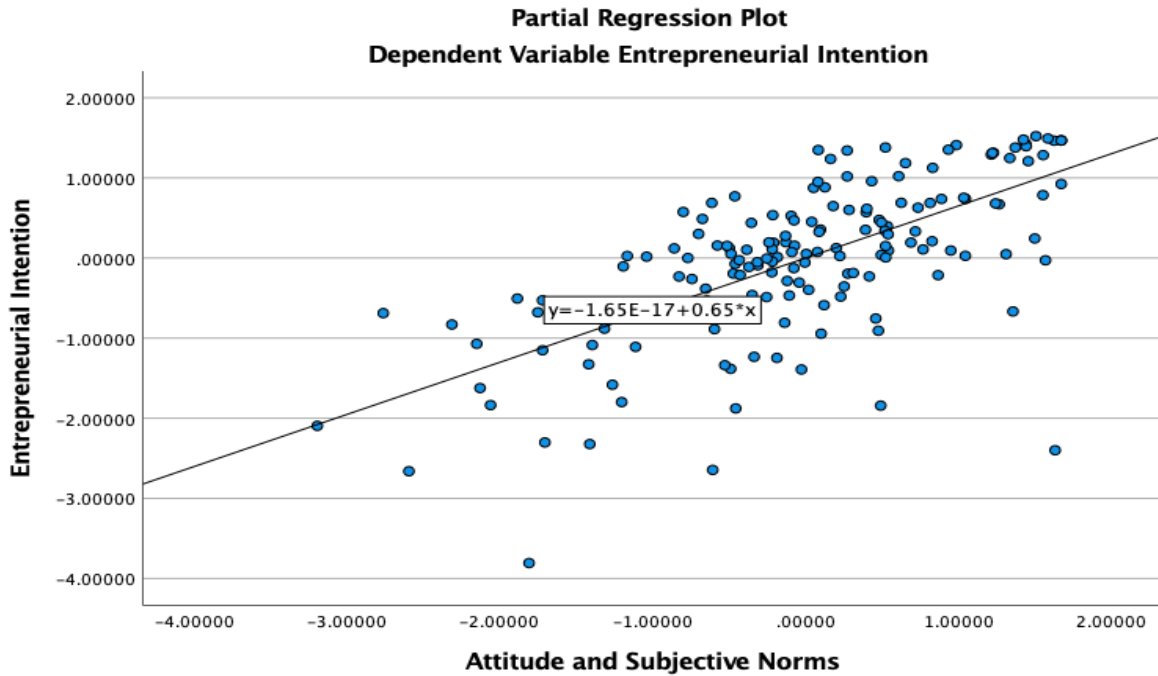
The results of the linear regression in Table 5.21 indicate that the coefficients of PBC, LoC, and RTP were not significant at a 0.05 level of significance. Three of the variables that defined the EP construct independently did not have an influence on entrepreneurial intention.

The coefficient of ASN (0.661) with a confidence interval of (-0.113;0.11) was significant at a 0.01 level of significance, with a p-value of <0.01. The relationship between ASN and entrepreneurial intention can be seen in Figure 5.9, which shows a positive linear association between the variables.

This suggests that ASN are the only two significant predictors of entrepreneurial intention. This suggests that individuals who have a positive attitude towards entrepreneurship and

believe that starting a business is a socially acceptable behaviour are more likely to have a higher level of entrepreneurial intention compared to those who do not.

**Figure 5.9: Hypothesis testing: Partial regression plot for entrepreneurial intention and EP**



Of the four constructs, the coefficient of ASN is the only construct that indicated a statistically significant relationship between EP and entrepreneurial intention at a 0.01 level of significance, with a p-value of <0.001. R-squared measures the strength of the relationship between EP and entrepreneurial intention and on a scale of 0% to 100%, this relationship was found to be fairly strong with the square of 44%.

This means that 44% of the variance in entrepreneurial intention can be explained by the variables in EP. The coefficient of determination (R-squared) value indicated that the model was a good fit and that the variables were strongly related to the dependent variable, namely entrepreneurial intention.

### **5.8.2 Entrepreneurial intention and Entrepreneurial Skills**

To test the hypothesis that entrepreneurial intention has or does not have an impact on ES, a linear regression model was used to test the relationship between entrepreneurial intention and all variables within ES.

ANOVA was used with the regression model to test if the variables entered into the model were completely heterogeneous and related to the dependent variable (entrepreneurial

intention). The results of ANOVA indicate that the variables were significantly independent, with a p-value of <0.001 at a 0.01 level of significance.

The linear regression results show that all variables in the ES construct were found to be significant predictors of entrepreneurial intention, with a p-value of <0.001 at a 0.01 level of significance. The coefficients for all variables were positive, which indicates a positive linear association between ES and entrepreneurial intention.

**Table 5.22: Hypothesis testing: ANOVA outcomes for entrepreneurial intention and ES**

Model	Sum of squares	Df.	Mean square	F	Sig.
Regression	96.519	4	24.130	61.791	<.001
Residual	62.481	160	.391		
<b>Total</b>	<b>159.000</b>	<b>164</b>			

With the reassurance that the variance within the variables of ES and intention is explained, the regression model below tested if each variable in the ES is associated with the intention.

**Table 5.23: Hypothesis testing: Regression outcomes for entrepreneurial intention and ES**

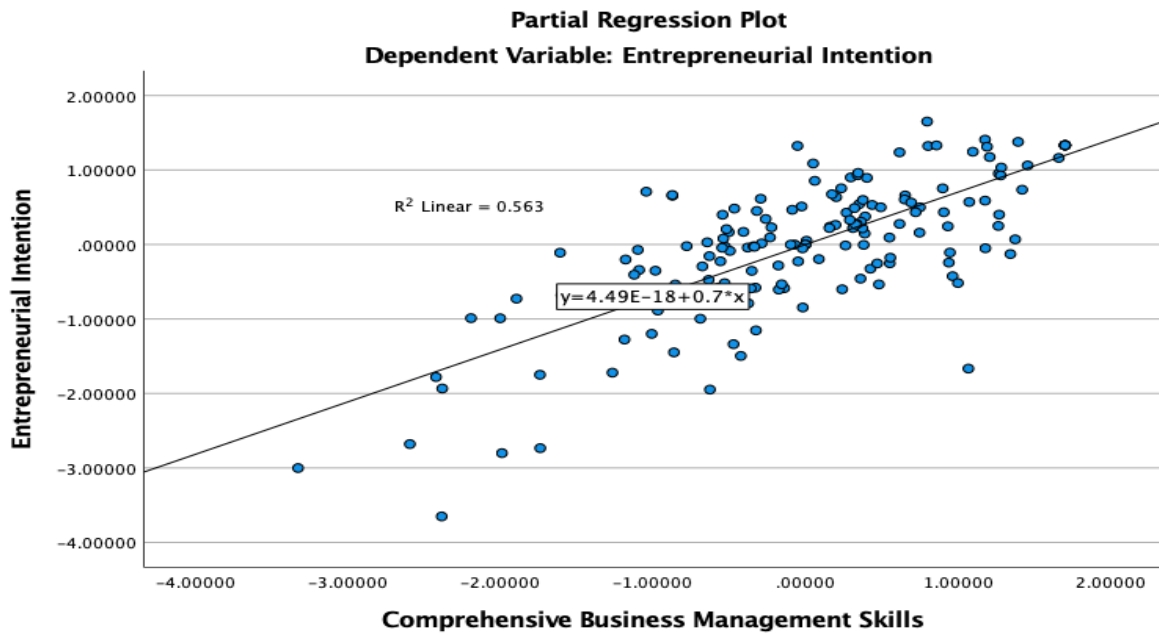
ES construct	Hypothesis testing			Confidence interval	
	Beta	t	Sig.	Lower bound	Upper bound
(Constant)		.000	1.000	-.096	.096
CBM	.711	14.356	<.001	.608	.802
SIS	-.119	-2.396	.018	-.215	-.021
FMS	.292	5.885	<.001	.192	.386
SUS	-.041	-.837	.404	-.138	.056

The results of the linear regression in Table 5.23 indicate that the coefficient of SUS was not significant at a 0.05 level of significance, with a p-value of 0.404. One of the variables that defined the ES construct independently did not have an influence on entrepreneurial intention.

The coefficient of CBM (0.771), with a confidence interval of between 0.608 and 0.802, was significant at a 0.01 level of significance, with a p-value of <0.01.

The relationship between CBM and entrepreneurial intention is illustrated in Figure 5.10, which shows a positive linear association between the variables. R-squared measures the strength of the relationship between ES and entrepreneurial intention and on a scale of 0% to 100%, this relationship was found to be fairly strong, with an R-square of 56%.

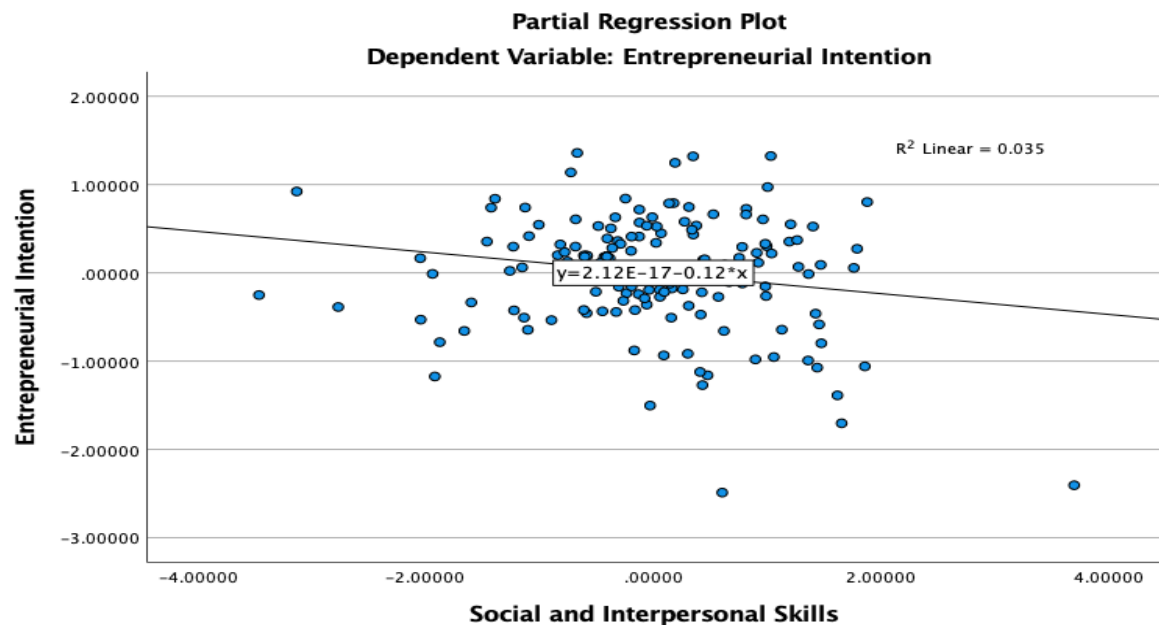
**Figure 5.10: Hypothesis testing: Partial regression plot for entrepreneurial intention and CBM**



The coefficient of SIS (-0.119), with a confidence interval of between 0.608 and 0.802, was significant at a 0.05 level of significance, with a p-value of 0.018. The negative coefficient indicated that the relationship between SIS and entrepreneurial intention was negatively correlated.

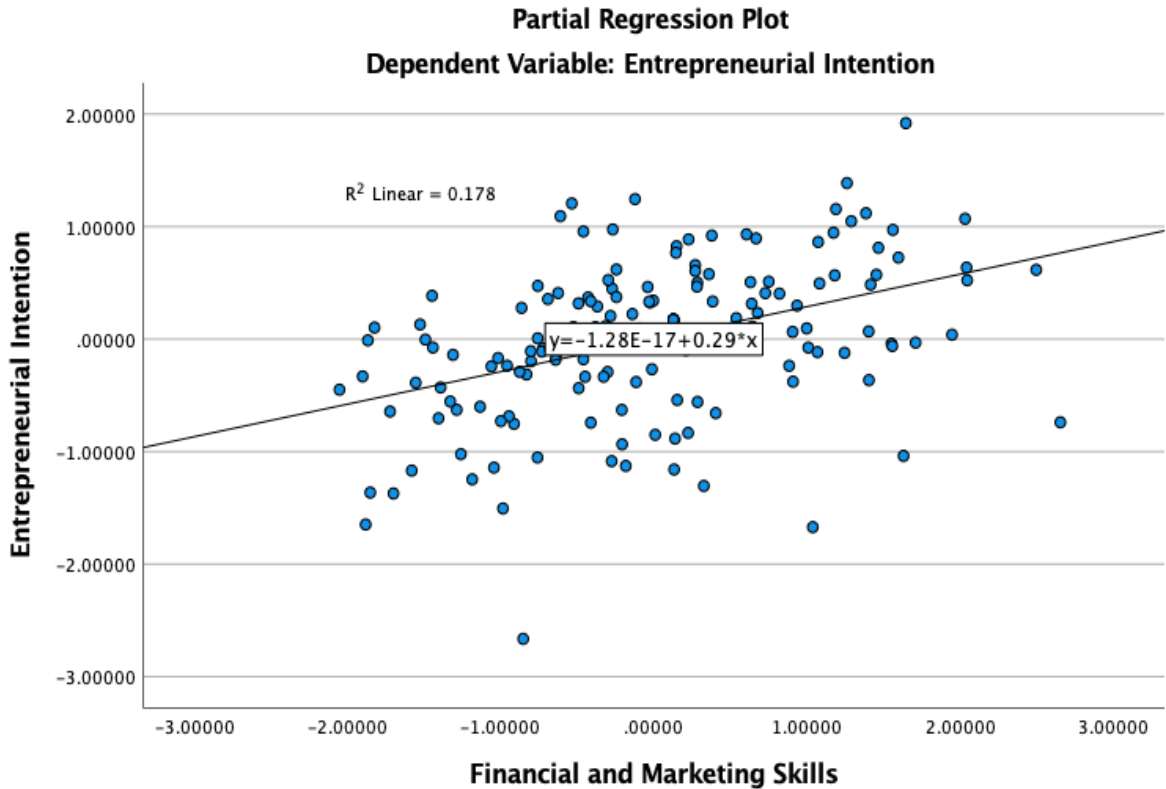
This means that as SIS increase, entrepreneurial intention decreases, and vice versa. The negative correlation indicates that individuals with higher SIS may be less likely to have entrepreneurial intention.

**Figure 5.11: Hypothesis testing: Partial regression plot for entrepreneurial intention and SIS**



The coefficient of FMS (0.292), with a confidence interval of between 0.192 and 0.386, was significant at a 0.01 level of significance, with a p-value of <0.001.

**Figure 5.12: Hypothesis testing: Partial regression plot for entrepreneurial intention and FMS**



With three of the four variables in the ES construct significantly related to entrepreneurial intention independently, it can be concluded that ES has an impact on entrepreneurial intention and vice versa.

The findings suggest that there is a significant relationship between ES and entrepreneurial intention, and that each construct has an impact on the other.

Of the four constructs, three of them were found to be significantly related to entrepreneurial intention.

- CBM: The coefficient was significant with a p-value of <0.001 at a 0.01 level of significance. The relationship between CBM and entrepreneurial intention was strong at 55%.

- FMS: The coefficient was significant with a p-value of <0.001 at a 0.01 level of significance. The relationship between FMS and entrepreneurial intention was represented by a weaker relationship, with a strength of 18%.
- SIS: The negative coefficient was significant, with a p-value of 0.018 at a 0.05 level of significance. The relationship between SIS and entrepreneurial intention represents the weakest of the three significant constructs, with a strength of 3%.

Of the three constructs, CBM proved to be the most significant and trustworthy construct to explain the relationship between ES and entrepreneurial intention.

Based on the results, CBM is the strongest predictor of entrepreneurial intention, followed by FMS and then SIS, which had the weakest relationship with entrepreneurial intention. The p-values and coefficients suggest that these relationships were statistically significant.

### 5.8.3 Entrepreneurial intention with Entrepreneurship Personality and Entrepreneurship Skills

In order to test the hypothesis regarding the impact of entrepreneurial intention on a combination of ES and EP, a GLM using maximum likelihood estimation was used to perform a two-way linear analysis on all combinations of factors within the two constructs, which resulted in 16 models. The null hypothesis, which assumes that there is no relationship between the dependent and independent variables, was accepted at a 5% level of significance.

The use of GLM with maximum likelihood estimation to test the relationship between entrepreneurial intention, ES, and EP, fitting 16 models in total to account for all combinations of factors within the two constructs, is a common approach in this kind of analysis.

**Table 5.24: Hypothesis testing: Generalised linear model (GLM) outcomes for entrepreneurial intention with EP and ES**

ASN	Parameter	B	95% Wald confidence interval		Hypothesis test		
			Lower	Upper	Wald chi-square	Df.	Sig.
			CBM	.024	-.086	.134	.187
SIS	.029	-.088	.145	.231	1	.630	
FMS	-.119	-.272	.034	2.332	1	.127	
SUS	-.077	-.272	.117	.609	1	.435	

The results indicate that there is no significant relationship between entrepreneurial intention and the combination of ASN (variable from EP) with parameters from the intrapreneurial skills construct. Additionally, it is noted that the relationship between ASN and FMS, as well as SUS, is negatively related with coefficients of -0.119 and -0.077 respectively.

**Table 5.25: Hypothesis testing: GLM outcomes for entrepreneurial intention with EP and PBC**

PBC	Parameter	B	95% Wald confidence interval		Hypothesis test		
			Lower	Upper	Wald chi-square	Df.	Sig.
			CBM	.289	.163	.415	20.117
SIS	-.103	-.213	.006	3.403	1	.065	
FMS	-.053	-.197	.090	.529	1	.467	
SUS	-.043	-.202	.115	.291	1	.590	

The coefficients of SIS, FMS, and SUS, in combination with PBC, were not significantly related to entrepreneurial intention at a 5% level of significance. However, the combination of PBC and CBM had a statistically significant influence on entrepreneurial intention, with a p-value of <0.001 at a 0.01 level of significance.

**Table 5.26: Hypothesis testing: GLM outcomes for entrepreneurial intention with EP and LoC**

LoC	Parameter	B	95% Wald confidence interval		Hypothesis test		
			Lower	Upper	Wald chi-square	Df.	Sig.
			CBM	-.076	-.232	.079	.919
SIS	-.067	-.230	.096	.643	1	.422	
FMS	-.044	-.175	.087	.434	1	.510	
SUS	-.153	-.269	-.037	6.631	1	.010	

The results indicate that the coefficients CBM, SIS, and FMS, in combination with LoC, were not significantly related to entrepreneurial intention at a 5% level of significance. However, the combination of LoC and SUS had a statistically significant influence on entrepreneurial intention, with a p-value of <0.01 at a 0.01 level of significance. It is noted that the relationship between entrepreneurial intention and LoC with SUS was significant.

**Table 5.27: Hypothesis testing: GLM outcomes for entrepreneurial intention with EP and RTP**

RTP	Parameter	B	95% Wald confidence interval		Hypothesis test		
			Lower	Upper	Wald chi-square	Df.	Sig.
	CBM	.068	-.077	.213	.841	1	.359
	SIS	-.141	-.263	-.018	5.024	1	.025
	FMS	-.124	-.275	.027	2.581	1	.108
	SUS	-.114	-.251	.022	2.694	1	.101

The results suggest that the coefficients of CBM, FMS, and SUS, in combination with RTP, were not significantly related to entrepreneurial intention, at a 5% level of significance. However, the combination of RTP and SIS had a statistically significant influence on entrepreneurial intention, with a p-value of <0.025 at a 0.05 level of significance.

## 5.9 RESEARCH PROBLEM

This research aimed to explore the impact of EI on the entrepreneurial intention of young people in South Africa. The research analysed the full range of EIs in order to develop a framework to guide the implementation of these interventions. The focus is on evaluating the key factors, including ES, EP, and entrepreneurial intentions, that can influence young people's decision to pursue entrepreneurship as a career and way of life. The ultimate goal is to contribute to poverty reduction and provide a suitable platform for the development of young entrepreneurs in South Africa.

## 5.10 CONCLUSION

To simplify the statistical output and to make it easy to understand, an executable framework was developed.

The coefficients were used in statistics as a scale of the notch that moves the independent variable to achieve the targeted dependent variable. In this study, the coefficients were converted to percentages.

The influence of EI on the entrepreneurial intention of youths in South Africa through the study of YLED and JASA cohorts between the years of 2008 and 2019 has been proven to be statistically significant, which means that EI does have an impact on entrepreneurial intention to pursue entrepreneurship as a career and life choice.

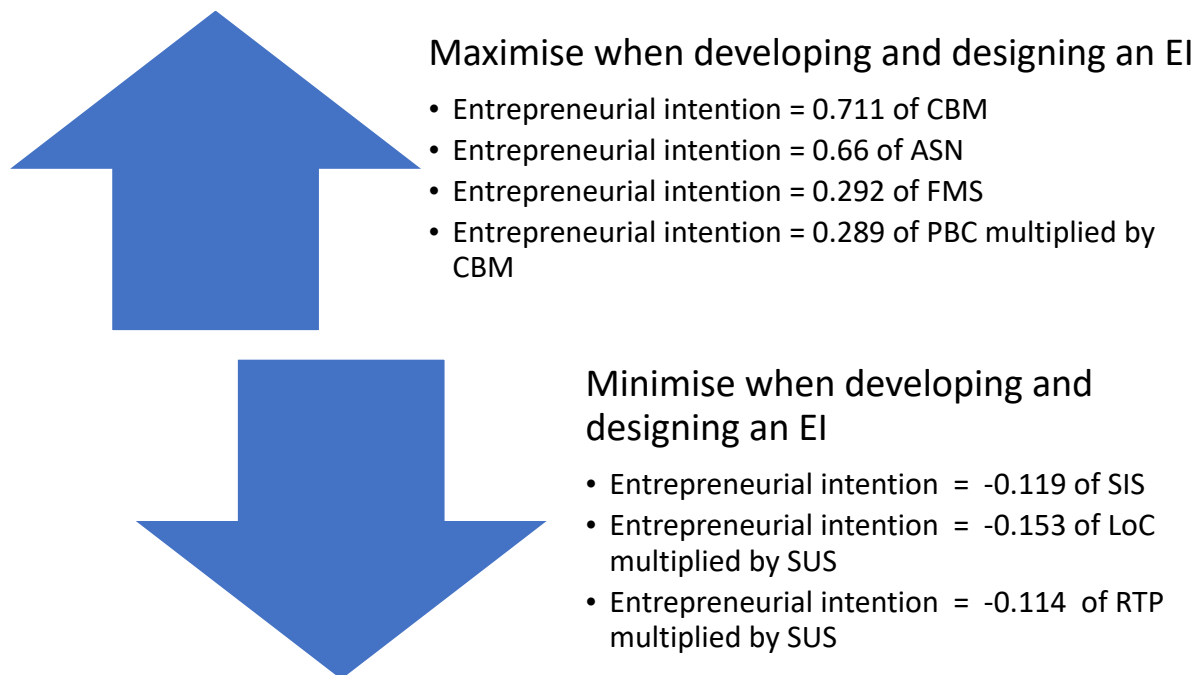
The study suggests that EIs had a statistically significant effect on the entrepreneurial intention of youths in South Africa, as evidenced by the YLED and JASA cohorts between 2008 and 2019. This suggests that these interventions can be a valuable tool in promoting entrepreneurship as a career and life choice among young people in South Africa.

Furthermore, the following framework was developed to guide EIs to achieve the maximum entrepreneurial intentions:

- 71% of the intervention content to focus on CBM;
- 66% to focus on ASN;
- 29% to focus on FMS; and
- 25% to focus on a combination of PBC and CBM (see Figure 5.13).

Content related to SIS, and a combination of LoC and RTP with SUS, should be approached with caution.

**Figure 5.13: The impact of EI on entrepreneurial intention: Outcome summary**



This model suggests that the highest impact on entrepreneurial intentions can be achieved by focusing 71% of the intervention content on CBM, 66% on ASN, 29% on FMS, and 25% on a combination of PBC and CBM.

On the other hand, the intervention should minimise content related to SIS, LoC, and RTP with SUS. The model suggests that these factors may have a negative impact on entrepreneurial intentions.

### **5.11 ENTREPRENEURIAL INTERVENTION MODEL**

The study suggests that EIs have a statistically significant effect on the entrepreneurial intention of youths in South Africa. This suggests that these interventions can be a valuable tools in promoting entrepreneurship as a career and life choice among young people in South Africa.

Based on the model, the following actions should be taken to maximise the impact of an EI:

- Emphasise CBM: This should form the majority of the EI content, and should focus on teaching participants the necessary knowledge and skills for running a successful business.
- Focus on ASN: The EI should aim to change participants' ATE and help them to conform to the perceived norms of successful entrepreneurs.
- Teach FMS: Participants should be taught the FMS necessary to successfully manage a business.
- Emphasise PBC and CBM: A combination of these two factors should also be emphasised in the EI to help participants take control of their entrepreneurial journey and successfully manage their businesses.

On the other hand, to minimise the negative impact on entrepreneurial intentions, the EI should do the following:

- Minimise content related to SIS: This should be approached with caution, as it may have a negative impact on entrepreneurial intentions.
- Avoid combining LoC and RTP with SUS: This combination may have a negative impact on entrepreneurial intentions; it should thus be avoided in the EI.

Therefore, the findings suggest that when designing an EI, it is important to focus on building the cognitive and affective components of entrepreneurship, while also addressing social and environmental factors that may discourage entrepreneurship. The results provide actionable insights that can inform the development of effective EIs that can improve the entrepreneurial intentions of young people from disadvantaged communities.

## **CHAPTER 6: DISCUSSION**

### **6.1 INTRODUCTION**

The study aimed to determine the influence of EIs on the entrepreneurial intentions of young people. The research was conducted by surveying young people who participated in an EI between 2008 and 2019. The survey consisted of questions related to the participants' entrepreneurial intentions, as well as questions about the specific aspects of the EIs. The collected data were analysed using statistical methods to identify any significant changes in the participants' entrepreneurial intentions as a result of the EIs. The findings of this study provide valuable insight into the effectiveness of EIs in shaping the entrepreneurial intentions of young people, and can inform the development of future entrepreneurial programmes for this population.

EIs refer to programmes or initiatives designed to encourage and support entrepreneurship among individuals, particularly young people. These EIs may include educational programmes, mentoring, networking opportunities, and access to funding or resources.

Entrepreneurial intentions refer to an individual's desire or willingness to start or own a business in the future. These intentions can be influenced by various factors, including personal characteristics, social norms, and access to resources and support.

Research has shown that EIs can have a positive impact on entrepreneurial intentions among the youth. For example, educational programmes that provide young people with knowledge and skills related to entrepreneurship can increase their likelihood of starting a business in the future. Mentoring programmes that connect young entrepreneurs with experienced business leaders can also provide valuable guidance and support, which can increase their intentions to start a business.

Additionally, networking opportunities and access to funding and resources can also play a significant role in influencing entrepreneurial intentions among the youth. Connecting young entrepreneurs with potential partners, customers, and investors can provide them with the support and resources they need to turn their business ideas into reality.

Overall, the influence of EIs on entrepreneurial intentions of the youth is found to significant, as these interventions can provide young people with the knowledge, skills, and resources they need to start and grow successful businesses.

However, it is important to note that not all EIs are equally effective, and the specific design and implementation of the intervention can play a significant role in its impact on entrepreneurial intentions. Future research should therefore continue to explore the most effective strategies for promoting entrepreneurship among young people, and how these strategies can be adapted to meet the specific needs and challenges of different populations and contexts.

## **6.2 GENERAL SUMMARY OF THE METHODS EMPLOYED IN THE STUDY**

In this study, the statistical methods used include descriptive analysis, factor analysis (specifically principal component analysis), and hypothesis testing using ANOVA.

Descriptive analysis was used to provide a summary of the demographic variables of the sample, which were categorised by enrolment cohorts. This helped to understand the characteristics of the sample and to identify any differences or trends across time.

Factor analysis was applied to reduce the large number of variables into a smaller number of factors that would better represent the constructs being measured (IC, EP, ES, and entrepreneurial intention). The chosen method for factor analysis was principal component analysis, which creates factors based on the amount of variation they carry within the constructs. The Kaiser criterion was used to determine the number of factors to be used in each construct, where any eigenvalues greater than 1 were considered a factor. This method helped to reduce the complexity of the data and to identify underlying dimensions or factors that may explain the relationships between the variables.

Hypothesis testing was conducted using ANOVA, which is used to test the significance of differences between groups. In this case, ANOVA was used to test the relationship between the independent variables (IC, EP, ES, and EI) and the dependent variable (entrepreneurial intention). Correlation and regression analysis were used to examine the relationship between the independent and dependent variables. Correlation analysis was used to determine the strength and direction of the relationship between variables, while regression analysis was used

to identify the extent to which changes in the independent variable predicted changes in the dependent variable.

The use of correlation and regression analyses was appropriate given the number of observations and the fact that the study examined the relationship between variables. With a sample size of 165, correlation and regression analyses can be used to identify potential relationships between variables and to test the strength and significance of those relationships. Additionally, observations were collected over a period of 11 years, which may introduce potential confounding factors. By using correlation and regression analyses, the study could control for some of these factors and provide a more accurate assessment of the relationship between the independent and dependent variables.

### **6.3 SUMMARY OF FINDINGS**

#### **6.3.1 General findings**

The following are the general findings of this study:

- EIs have a positive influence on entrepreneurial intentions and skills development, EP, and the pursuit of post-high school education.
- IC is not a reliable moderating variable.
- EP has a positive influence on entrepreneurial intentions.
- ES have a positive influence on entrepreneurial intentions.
- EI results in the development of ES and EP.

#### **6.3.2 Hypotheses**

One hypothesis originally included IC as a moderating variable, but after data collection, it was found that its reliability was low (Cronbach's alpha of 0.289) and it was removed from the study. The three main hypotheses that were tested and their results are as follows:

- EP has a positive impact on entrepreneurial intentions among young people from disadvantaged backgrounds.
- ES have a positive impact on entrepreneurial intentions among young people from disadvantaged backgrounds.

- The combination of EP and ES has the strongest correlation with entrepreneurial intentions, which indicates that a combination of these two factors may be most effective in promoting entrepreneurship among this group.

### **6.3.3 Key take-away points**

EIs also had a positive impact on the participants' self-confidence and self-esteem, which can be seen as important factors for entrepreneurial success.

The participants reported that the EIs provided them with valuable knowledge and skills that they can apply in their future business ventures. The findings support the importance of considering both EP and ES when promoting entrepreneurship among young people from disadvantaged backgrounds since the combination has the strongest correlation with entrepreneurial intentions among young people from disadvantaged backgrounds.

The research results suggest that EIs can be an effective tool for promoting entrepreneurship among young people and should be considered as a valuable tool for supporting the development of young entrepreneurs. Additionally, the positive impact of EIs on young people's entrepreneurial intentions highlights the importance of providing opportunities for them to develop these skills and gain experience in entrepreneurship.

The results of the study are consistent with the TPB, which suggests that intention is a key predictor of behaviour and that both ATE and PBC (represented by EP and ES in this study) influence intention. The results thus suggest that the TPB can be applied to the study of entrepreneurial intentions among young people from disadvantaged backgrounds.

Another key finding is that the effectiveness of EIs in promoting entrepreneurship may vary based on the demographic characteristics of the participants. For instance, the study found that female participants reported a lower level of entrepreneurial intentions compared to male participants, despite similar levels of participation in the interventions. This highlights the need for targeted interventions that address the specific barriers and challenges faced by underrepresented groups in entrepreneurship.

The study also suggests that the impact of EIs on entrepreneurial intentions may be influenced by external factors such as the economic and social context in which the participants operate. It is therefore important for policymakers and practitioners to consider the broader socio-

economic conditions in which young people live and work when designing and implementing EIs.

Overall, the study provides valuable insights into the potential of EIs to promote entrepreneurship among young people and highlights the need for continued research and evaluation of these interventions to identify the most effective strategies for supporting the development of young entrepreneurs.

#### **6.4 FINDINGS: ADJUSTMENTS AND IMPLICATIONS**

The discussion chapter aims to contribute to the understanding of how EIs can foster entrepreneurial intentions among young people from disadvantaged backgrounds, and how these interventions can be tailored to maximise their effectiveness.

The study aimed to investigate the impact of EIs on the entrepreneurial intentions of disadvantaged youths. The research was conducted on a sample of disadvantaged youths from South Africa, and the data were collected through surveys. The findings of the study indicate that EIs have a positive influence on the entrepreneurial intentions of disadvantaged youths. The results suggest that EI programmes can play a critical role in promoting entrepreneurship among disadvantaged youths, and can help to create opportunities for them to start their own businesses. The discussion chapter further explores the findings of the study, and examines the implications of the results for future research and practice.

The study sought to determine the influence of EIs on the entrepreneurial intention of youths in South Africa and proposes that EIs can influence students and thus create the much-needed ES that lead to continual entrepreneurial intention.

To investigate the influence of EI on entrepreneurial intentions among young people from disadvantaged backgrounds, the following hypotheses were initially formulated:

- H<sub>1</sub>: EIs have a positive influence on entrepreneurial intention.
- H<sub>2</sub>: EP has a positive influence on entrepreneurial intention.
- H<sub>3</sub>: IC moderates the relationship between EIs and entrepreneurial intention.
- H<sub>4</sub>: IC moderates the relationship between ES and entrepreneurial intention.
- H<sub>5</sub>: IC moderates the relationship between EP and entrepreneurial intention.
- H<sub>6</sub>: ES have a positive influence on entrepreneurial intention.

During the analysis, the Cronbach's alpha for the IC indicator was below the required threshold to be considered a variable at 0.298 and was therefore not consistent and reliable. Cronbach's alpha is a measure of internal consistency, which assesses the reliability of a multi-item scale by comparing the correlation between items with the average correlation of all possible item subsets. A value of 0.7 or higher is generally considered acceptable for most research, indicating that the items are measuring the same construct. In this case, the alpha value of 0.298 for the IC indicator was below the threshold, indicating that the responses for this variable were not consistent and reliable. It was therefore not appropriate to use this variable as a moderator in the analysis and IC was removed as a moderator, which meant that the hypotheses had to be revised. To that end, the researcher amended the hypotheses by removing references to IC as a variable and a sub-research question, as can be seen in Figures 6.1 and 6.2.

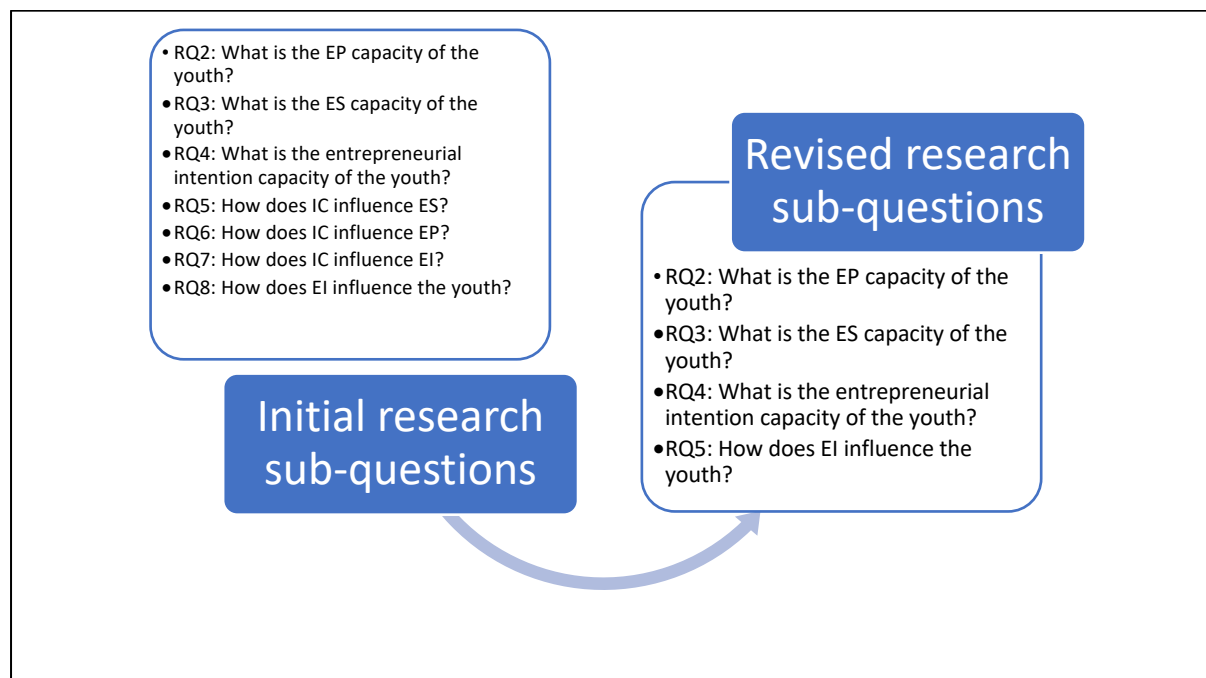
The revision based on the analysis resulted in the following amended hypotheses for analysis and discussion:

- H<sub>1</sub>: EP has a positive influence on entrepreneurial intention.
- H<sub>2</sub>: ES have a positive influence on entrepreneurial intention.
- H<sub>3</sub>: EP and ES have a positive influence on entrepreneurial intention.

**Figure 6.1: Hypotheses changes**



**Figure 6.2: Sub-research question changes**



Initially, six hypotheses were proposed, including the moderating effect of IC on the relationships between EP, EIs, ES, and entrepreneurial intention. However, after analysing the data, the Cronbach's alpha for the IC indicator was found to be below the acceptable threshold and the variable was removed as a moderator. Consequently, the hypotheses were revised, and the revised hypotheses include the positive influence of EP and ES on entrepreneurial intention, and the research questions focus on the entrepreneurial capacity and the influence of EI on the youth.

The changes to the hypotheses and research questions were both deemed plausible and critical to achieving the desired outcomes of the study. By focusing on the positive influence of EP and ES on entrepreneurial intention and examining the relationship between EI and entrepreneurial capacity among the youth, the study is able to provide valuable insight into the factors that drive entrepreneurial success in disadvantaged communities.

A quantitative method was chosen for the research, and SurveyMonkey was used as the data-collection platform. The survey consisted of questions related to the participants' background, their level of entrepreneurial intention, and their exposure to EI programmes.

The purpose of the discussion chapter in this study is to analyse and interpret the findings from the research regarding the influence of EI on entrepreneurial intentions among young people from disadvantaged backgrounds.

The chapter explores the relationship between the intervention and the intentions of young people, and how this relationship may differ based on different demographic and socio-economic factors. The discussion also examines the implications of the findings for policymakers and practitioners in the field of entrepreneurship and education, and suggests areas for further research.

## **6.5 OVERVIEW OF KEY FINDINGS**

The results suggest that EP has a positive impact on entrepreneurial intentions among young people from disadvantaged backgrounds.

This study investigated the influence of EI on entrepreneurial intention among disadvantaged youths (165 respondents out of a population of 1 100) in South Africa. The data from the survey of young people who had participated in EI programmes showed that EP and ES have a positive impact on entrepreneurial intentions among young people from disadvantaged backgrounds, while the combination of EP and ES had the strongest correlation with entrepreneurial intentions.

The results of the study suggest that both EP and ES have a positive impact on the entrepreneurial intentions of young people from disadvantaged backgrounds. Furthermore, the combination of EP and ES was found to have the strongest correlation with entrepreneurial intentions, which indicates that a combination of these two factors may be the most effective in promoting entrepreneurship among this group. These findings can be useful for designing effective EI programmes that focus on developing both personality traits and practical skills to promote entrepreneurship among young people from disadvantaged backgrounds.

The results further suggest that EI can play a crucial role in fostering entrepreneurial intentions among young people from disadvantaged backgrounds and helping them overcome barriers to entrepreneurship. Furthermore, the results suggest that these outcomes may be useful in designing EI programmes that target both EP and ES development, which may increase the likelihood of success among this group.

## **6.6 FINDINGS**

### **6.6.1 EIs have a positive influence on entrepreneurial intention**

This study investigated the influence of EIs on entrepreneurial intention among disadvantaged youths (165 respondents out of a population of 1 100) in South Africa. The data from the survey of young people who had participated in EI programmes demonstrated that a large number of participants were young women (68%), since there were 113 female respondents. The study showed, for the total surveyed population, that EIs lead to young people developing ES (95%), building EP (53%), pursuing post-high school education (97%), and having high entrepreneurial intentions (83%).

The findings are a demonstration that EIs for disadvantaged youths can lead to a range of positive outcomes, including the development of ES, the building of EP, and the pursuit of post-high school education. These findings are supported by previous research, which has consistently shown that school-based EE programmes can have a significant impact on students' self-esteem, self-efficacy, and entrepreneurial intentions, as well as on their ES (Bacigalupo et al., 2016; Li et al., 2019; Fayolle & Gailly, 2015; Kassean et al., 2015). EIs can also play an important role in reducing youth unemployment and promoting economic growth (OECD, 2019).

However, some studies that focused on EIs and entrepreneurial intentions suggested that the impact of EIs on disadvantaged youths may be limited by a range of factors, including the lack of access to resources and support, cultural and societal barriers, and difficulties in translating entrepreneurial intentions into successful business ventures (Boudreaux & Nikolaev, 2018; Hölzl, 2016; Wilson et al., 2007). Additionally, scholars have questioned the effectiveness of school-based EE programmes in promoting long-term entrepreneurial success by arguing that such programmes may focus too heavily on the development of technical skills and neglect the broader socio-cultural, economic, and political factors that shape entrepreneurial opportunities (Karlsson & Moberg, 2013; Kloosterman et al., 1999).

The high percentage of participants who reported developing ES (95%) and having high entrepreneurial intentions (83%) after participating in the EIs challenges the argument that EIs may not be effective in improving ES and entrepreneurial intentions. This is consistent with previous research that has found that EIs can improve ES and entrepreneurial intentions among disadvantaged youths (Gorgulu & Yilmaz, 2020; Kollmann et al., 2017).

Similarly, the argument that EIs may only benefit a select group of students is challenged by the finding that a high percentage (68%) of participants were young women. The finding suggests that EIs can be effective in promoting entrepreneurship among underrepresented groups, which is an important area of focus for policymakers and practitioners (Kassean et al., 2015; Peña-Casas & Ghailani, 2020).

Overall, the findings provide support for the use of EIs as a means of promoting entrepreneurship among disadvantaged youths, and highlight the need for further research and policy interventions in this area.

### **6.6.2 EIs lead to the development of ES and EP**

The study found that the implementation of an EI programme in high schools has the potential to result in the acquisition of ES and EP among students. These programmes typically involve a combination of classroom instruction, hands-on activities, and mentorship opportunities.

These findings are consistent with existing research on the impact of EIs in high schools on disadvantaged youths (Bradley & McDonald, 2013; Van der Sluis et al., 2016; Wennekers et al., 1999) that found that school-based EE programmes lead to significant increases in students' self-esteem, self-efficacy, and entrepreneurial intentions, and that school-based entrepreneurial programmes lead to significant improvements in students' ES, as well as increased entrepreneurial intentions and self-efficacy.

Overall, the findings of these studies are consistent with the researcher's finding that EIs in high schools can lead to the development of ES and a more entrepreneurial mindset among disadvantaged youths. The findings can be seen as evidence that such interventions can be effective in fostering the EP and ES of youths from disadvantaged backgrounds, thereby answering the following research questions:

#### **6.6.2.1 RQ2: *What is the EP capacity of the youth?***

The EP capacity of the youth refers to the personal characteristics and traits that are associated with entrepreneurial success. Some researchers believe that certain personality traits are more common among successful entrepreneurs, and that these traits can be developed and nurtured in the youth.

The defined research outcome is significant because it shows that such interventions have a positive impact on the future economic opportunities of young people and contribute to reducing inequalities in entrepreneurship and life. This highlights the importance of investing in programmes that support the development of ES and entrepreneurial knowledge, particularly among underrepresented groups.

#### **6.6.2.2 RQ3: *What is the ES capacity of the youth?***

The ES capacity of the youth can vary greatly depending on factors such as their level of education, access to resources and mentorship, and previous experience in starting and running a business. However, research – including by Shane (2010) and Sarasvathy (2008) – suggests that many young people possess the potential to develop strong ES. While some of these skills may be more innate, this study, together with many others, suggests that many skills can be developed and improved through education, training, and practical experience.

#### **6.6.2.3 RQ5: *How does EI influence the youth?***

EIs can have a positive influence on the youth by teaching them valuable skills such as problem solving, creativity, and critical thinking. It can also instil a sense of confidence and self-efficacy, and expose them to the rewards and challenges of starting and running a business. Additionally, EIs can provide opportunities for youths to develop leadership abilities and to gain hands-on experience in areas such as market research, product development, and financial management.

The study shows that the young people who participated in the study did indeed participate in an EI and they can attest that it had a positive influence in their lives, which is consistent with what other researchers have found. The study revealed that 74% of the participants had pursued higher education, 38% were employed, and 13% were seeking entrepreneurial options.

The outcome therefore demonstrates that EIs have a transformative effect on the youth, as they teach them valuable skills and instil a sense of confidence, empowerment, and leadership. These experiences and skills have had a long-lasting positive impact on the personal and professional lives of the young people who participated in EIs, and will also contribute to a more diverse and innovative entrepreneurial, societal, and economic ecosystem. One can further confirm that EIs help to prepare the youth for future careers and increase their chances of success in the job market.

### **6.6.3 EIs result in beneficiaries pursuing post-high school education**

EIs result in beneficiaries pursuing post-high school education, as evidenced by the observation from the study that 41% of participants held undergraduate qualifications. From the sample, 24% held a postgraduate education qualification, which increased the chance of employment and lifting them out of poverty as evidenced by the 71% of the respondents who confirmed that they were employed. These outcomes are consistent with other research outcomes, such as the study by De Jager and Stone (2017), who found that EE and training programmes have a positive impact on the educational and employment outcomes of beneficiaries.

These outcomes further suggest that EIs have a positive impact on beneficiaries, as they are more likely to pursue higher education (undergraduate and postgraduate) after participating in these programmes. The increased level of education is associated with increased employment opportunities and helps to lift individuals out of poverty. The outcome further highlights the potential for EIs to not only foster ES and entrepreneurial intentions, but also to improve the overall quality of life for participants.

Overall, the data provide valuable insights into the impact of EE on the pursuit of further education of disadvantaged youths in South Africa and suggest that the respondents were well-educated individuals, with a significant portion having advanced degrees. This indicates that the participants are likely to have higher levels of knowledge and skills, which may enhance their ability to succeed as entrepreneurs. However, further research will help to fully understand the relationship between further education and entrepreneurial intention.

### **6.6.4 EIs have a positive influence on entrepreneurial intention**

The analysis shows that EIs in high schools lead to increased entrepreneurial intentions among disadvantaged youths, where 65% of the respondents firmly indicated that if they had the opportunity and resources, they would like to start a firm; 95% of the participants confirmed that they had the required knowledge and skills to start a new venture, 78% of the respondents believed there were good opportunities to start a business in the area where they lived, and 53% of the respondents believed very strongly that being an entrepreneur implied more advantages than disadvantages for them.

These results indicate that the majority of the participants in the EI programme had a positive view of entrepreneurship as a career option. The high level of agreement among the

respondents suggests that the EI programmes had a positive impact on their perception of entrepreneurship and that they believed that it offered many benefits. The results further highlight the importance of continuing to provide EE and support to disadvantaged youths in South Africa, as this can help to foster a more positive and supportive environment for entrepreneurship development.

The findings of this study are consistent with existing research that shows that EIs in high schools can lead to increased entrepreneurial intentions among disadvantaged youths. For example, a study by Rauch and Frese (2007) found that EE programmes in high schools led to increased entrepreneurial intentions among students from disadvantaged backgrounds. Another study by Hjorth and Kolvereid (2006) found that EE programmes in high schools led to increased entrepreneurial intentions among students from low-income families. These studies provide support for the idea that EIs in high schools has a positive impact on the entrepreneurial intentions of disadvantaged youths in South Africa.

#### **6.6.5 Impact on women's entrepreneurial intention**

Of the total sample of 165 participants, 113 were women, comprising 68% of the sample. The results suggest that EIs can be an effective tool for promoting entrepreneurship among young people from disadvantaged backgrounds, particularly young women (ages 21 to 34). The researcher found that EIs in high schools lead to increased entrepreneurial intentions and entrepreneurial activity among women. These findings are particularly noteworthy given the overrepresentation of young women in the sample, as they suggest that such interventions may be a powerful means of promoting gender equity in entrepreneurship and increasing economic opportunities for young women from disadvantaged backgrounds.

The finding on the impact of EIs on women's entrepreneurial intentions is consistent with previous research that suggests that young women are increasingly participating in EIs in high schools. For example, a study by the Center for Women's Business Research (2018) found that the number of young women starting their own businesses has increased by 74% since 2007. A study by the Global Entrepreneurship Monitor (GEM, 2016) found that the rate of female entrepreneurship in high school students is higher than that of their male counterparts.

This finding aligns with existing research on the impact of EE on young people, particularly women. For example, a study by Peterman and Kennedy (2003) found that EE programmes increased entrepreneurial intentions and self-efficacy among high school students, including

female students. Similarly, a study by Delmar and Davidsson (2004) found that EE programmes had a positive impact on the entrepreneurial intentions of female students.

The analysis in this study shows that EIs have a 65% success rate in positively influencing the entrepreneurial intentions of female participants, which supports previous research (i.e., Delgado & Munoz, 2015) and contributes to our understanding of the impact of such programmes. Additionally, this outcome demonstrates the appetite to participate in development programmes, taking in the lessons and acting on the possibilities, which in this instance is to be entrepreneurial.

This increased participation of young women in EIs in high schools may indicate a shift in societal attitudes towards women in business. It may also reflect the growing availability of resources and support for young women to pursue entrepreneurial opportunities. However, it is important to note that despite this increase in participation, young women still face significant barriers and challenges in starting and growing their own businesses. The specific challenges faced by young women in starting and growing their own businesses vary depending on the context and region, but some common barriers include lack of access to funding, limited networks and mentorship opportunities, and gender biases and stereotypes.

Other studies (Marlow et al., 2017; Carter et al., 2017; Coleman & Kariv, 2015) have found that while EE can increase entrepreneurial intentions among women, it may not necessarily lead to increased start-up activity, an increase in their profitability or longevity, and that it may not necessarily lead to increased business success.

The recommendation here is that a qualitative study be undertaken with this population to gain an understanding of what prevents these young women from transitioning from entrepreneurial intention to entrepreneurial action.

Further research is needed to understand the factors that contribute to this trend and to identify ways to support young women in their entrepreneurial pursuits. This study highlighted that young women are keen and open to entrepreneurial training and develop high levels of entrepreneurial intentions.

This outcome thus confirms that EIs in high schools lead to increased entrepreneurial activity among women.

## **6.7 INTELLECTUAL CAPITAL DOES NOT MODERATE THE RELATIONSHIP BETWEEN ENTREPRENEURIAL INTERVENTION, ENTREPRENEURIAL SKILLS, ENTREPRENEURIAL PERSONALITY, AND ENTREPRENEURIAL INTENTION**

This study analysed the influence of EIs on the entrepreneurial intentions of disadvantaged youths in South Africa. The data from the survey of young people who had participated in EI programmes show that IC had a 0.298 Cronbach's alpha, which suggests that the variable was unreliable. The implication was that IC could not be carried forward as a moderating variable of the relationship between EIs and entrepreneurial intentions of the youth because the reliability of the measure was too low.

The study therefore found that IC, which includes factors such as knowledge, skills, and abilities, does not have a significant impact on the relationship between EIs and entrepreneurial intentions among young people from disadvantaged backgrounds.

The finding that the IC scale was not as strongly correlated with entrepreneurial intention as the other four scales may be attributed to the use of a binary scale for IC, compared to a five-point Likert scale for the others. The use of different types of scales in quantitative research, particularly a binary scale and a more detailed Likert scale, can result in inconsistent data that are difficult to compare and analyse. The binary scale may oversimplify the measurement of individual components, while the Likert scale provides more detailed and nuanced information. Mixing these two types of scales can lead to confusion and may hinder accurate interpretation of data.

It was important to ensure that the scales used in data collection were consistent and appropriate for the research question being studied. Mixing different types of scales can lead to inconsistent or inaccurate results, making it difficult to draw accurate conclusions from the data.

Additionally, aspects critical to IC were already accounted for in some of the survey questions of the other variables. For example, knowledge and skills were accounted for in ES, and abilities were accounted for in EP and entrepreneurial intentions. These elements could have contributed to the variable not being a contributing factor to the relationship between EIs, ES, EP, as well as entrepreneurial intention.

This issue highlights the importance of ensuring the reliability and validity of measures used in research. In order to ensure that the results of the study are credible, it may be necessary to

refine the measurement of IC or to use another measure of IC that has been validated and demonstrated to have a high level of reliability.

Additionally, it is important to consider other factors that may impact the relationship between EIs and entrepreneurial intentions of disadvantaged youths in South Africa to ensure that the results of the study are comprehensive and representative of the entire population. In this instance, researchers (Marcoulides, 1998; Landers, 2014) argue that in instances such as these, the course of action taken by the researcher will depend on the specific circumstances of the study and should be based on a careful evaluation of the reliability and validity of the measures used, as well as the research questions and overall research design. To increase the validity and reliability of the research findings, the researcher decided to exclude a variable from the analysis after careful consideration of its importance to the research questions and the extent to which its exclusion affected the interpretation of the results. The excluded variable was IC, which was found to have a low reliability when using the measure utilised in the study, and was not consistent with the other scales used. Consequently, the study found that the relationships between IC, EP, ES, and entrepreneurial intention could not be determined.

This issue underscores the importance of using reliable and valid measures in research. By excluding the IC variable, the study was able to focus on the most relevant and reliable data, and thus increase the validity and reliability of the research findings. Future studies should consider using validated and reliable measures to accurately assess the impact of different factors on entrepreneurial intention and outcomes among disadvantaged youths in South Africa. This will help in the development of more effective interventions to promote entrepreneurship and economic inclusion.

## **6.8 ENTREPRENEURIAL PERSONALITY AND ENTREPRENEURIAL SKILLS HAVE A POSITIVE INFLUENCE ON ENTREPRENEURIAL INTENTION**

The results suggest that EP and ES both have a positive impact on entrepreneurial intentions among young people from disadvantaged backgrounds. The research outcomes therefore suggest that individuals who possess a strong EP and have developed ES are more likely to have the desire and motivation to start their own business or venture, particularly those from disadvantaged backgrounds. The research outcomes further highlight the importance of fostering these traits and skills in young people from disadvantaged backgrounds to increase their chances of success in the entrepreneurial world. Additionally, this also suggests that

programmes and initiatives aimed at developing these traits and skills can be effective in promoting entrepreneurship among this population.

The combination of EP and ES has the strongest correlation with entrepreneurial intentions, which indicates that a combination of these two factors may be the most effective in promoting entrepreneurship among this group. The research outcomes also mean that individuals who possess both an entrepreneurial mindset and the necessary skills to start and run a business are more likely to have the intention to become entrepreneurs. Programmes and initiatives aimed at promoting entrepreneurship among disadvantaged youths should therefore focus on both developing the necessary skills and fostering an entrepreneurial mindset to be the most effective.

The research findings are consistent with existing research (Brouwer et al., 2016; Günsel et al., 2018; Arbaugh et al., 2015; Pekkola et al., 2015) on the impact of EIs in high schools on the entrepreneurial intentions of disadvantaged youths. The research, although specific to the context of its research population and focused on disadvantaged youths and in some instances focused on women and girls, does not diminish the fact that they were undertaken in developed economies where disenfranchised youths represent a minority.

For example, a study by Brouwer et al. (2016) found that a school-based entrepreneurship programme in the Netherlands increased entrepreneurial intentions among disadvantaged youths, particularly among girls. Similarly, a study by Günsel et al. (2018) found that a school-based entrepreneurship programme in Turkey increased entrepreneurial intentions and self-efficacy among disadvantaged youths.

Other studies have also found that EIs in high schools can have a positive impact on the entrepreneurial intentions of disadvantaged youths. For example, a study by Arbaugh et al. (2015) found that a school-based entrepreneurship programme in the United States of America increased entrepreneurial intentions among disadvantaged youths, particularly among students from low-income families. Pekkola et al. (2015) found that a school-based entrepreneurship programme in Finland increased entrepreneurial intentions among disadvantaged youths, particularly among students from low-income families.

The study focused on a country where the majority of the population consists of underprivileged youths, which implies that the benefits of EIs could have a significant impact on the economy and enhance the country's competitiveness. The study's findings suggest that

implementing EIs in high schools can be a productive approach to raising the entrepreneurial intention of disadvantaged youths, particularly among girls and students from low-income families. These findings help address RQ4: “What is the entrepreneurial intention capacity of the youth?” and RQ5: “How does EI influence the youth?” Given that countries like South Africa have a large population of underprivileged youths, the implications are substantial. EI in high schools has the potential to create new businesses and employment opportunities, which can reduce poverty and enhance the standard of living for the majority of the population, ultimately contributing to the country’s economic growth and competitiveness.

These findings highlight the importance of supporting EE and training in high schools to foster a culture of entrepreneurship and to encourage economic growth and development.

## **6.9 ENTREPRENEURIAL PERSONALITY AND ENTREPRENEURIAL INTENTION**

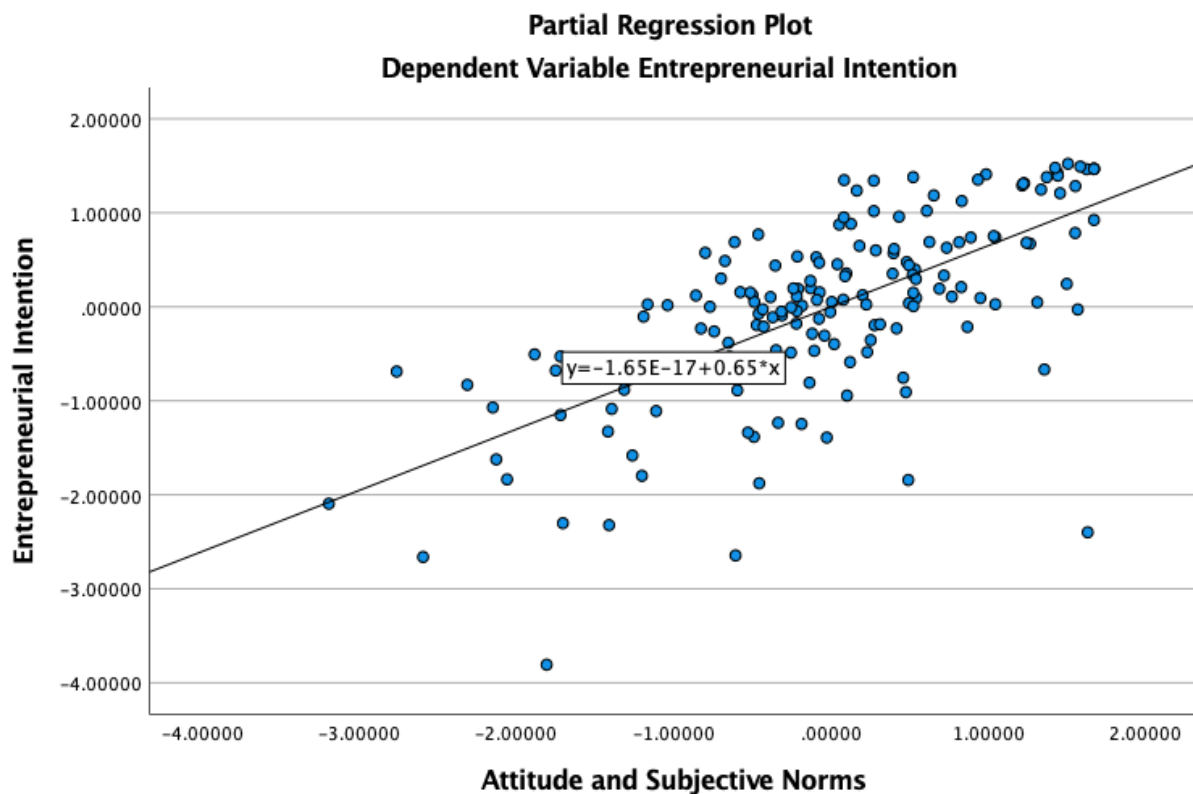
The study tested the hypothesis that entrepreneurial intention has an impact on EP. A linear regression model was used to examine the relationship between entrepreneurial intention and variables within EP. ANOVA was used to test the homogeneity and relationship between the independent variables and the dependent variable, with a significant p-value of  $<0.001$ . The regression analysis showed that three variables within EP (PBC, LoC, and RTP) were not significant at a 0.05 level of significance. However, the coefficient of ASN was significant at a 0.01 level of significance, which indicates a positive linear association with entrepreneurial intention. The results are supported by Figure 6.3, which shows the positive linear association between the variables.

The results of the regression analysis indicated that ASN was the only variable within the EP construct that had a significant positive impact on entrepreneurial intention. The coefficient of ASN was 0.661, with a confidence interval of (-0.113; 0.113), and was significant at a 0.01 level of significance, with a p-value of  $<0.01$ , which means that it is highly unlikely that this correlation is due to chance. This means that a one-unit increase in the value of ASN is associated with a 0.661-unit increase in the value of EI.

The relationship between ASN and entrepreneurial intention shows a positive linear association between the variables (see Figure 6.3). The relationship between ASN and entrepreneurial intention was found to be fairly strong, with a square of 44%. The square of 44% refers to the coefficient of determination, also known as R-squared. It indicates the proportion of the

variance in the dependent variable (entrepreneurial intention) that is explained by the independent variable (ASN). In this case, an R-squared value of 0.44 means that approximately 44% of the variation in entrepreneurial intention can be explained by the variation in ASN.

Figure 6.3: Hypothesis testing: Partial regression plot for entrepreneurial intention and ASN



These findings suggest that ASN had a strong positive correlation with entrepreneurial intention and played a significant role in influencing entrepreneurial intentions among young people from disadvantaged backgrounds. These findings support the hypotheses that EIs can have a positive effect on entrepreneurial intentions and skills, and that a combination of EP, ES, and intentions leads to a higher likelihood of entrepreneurship.

ASN are key drivers of entrepreneurial intention, as they shape an individual's perceptions of the desirability and feasibility of starting a business. Attitude reflects an individual's overall positive or negative evaluation of entrepreneurship, while SN reflect the influence of social norms and expectations on an individual's decision to pursue entrepreneurship. The positive relationship between ASN and EI found in this study suggests that individuals who perceive high levels of support and encouragement from their social networks, and who have a positive ATE, are more likely to have higher levels of entrepreneurial intention. A change in the values of attitude and norms can affect the value of an EI. For example, if an individual's ATE becomes more positive or their SN become more supportive of entrepreneurship, their level of entrepreneurial intention may increase. Conversely, if an individual's ATE becomes more negative or their SN become less supportive, their level of entrepreneurial intention may decrease. This underscores the importance of promoting positive attitudes and supportive SN

towards entrepreneurship as a means of fostering entrepreneurial intention and supporting entrepreneurial activity.

The findings are consistent with previous research on the relationship between ATE and SN in the context of entrepreneurial intentions. Studies have shown that a positive ATE is positively associated with the perceived social pressure or SN to become an entrepreneur (Krueger & Carsrud, 1993; Krueger et al., 2000). Additionally, the coefficient value of 0.661 suggests a moderate to strong correlation between ATE and SN, which is in line with other studies that have reported coefficients ranging from 0.50 to 0.70 (Krueger & Carsrud, 1993; Krueger et al., 2000). Furthermore, the p-value of  $<0.01$  indicates that this correlation is statistically significant at a very high level, which aligns with the findings of other studies that have also reported significant correlations between ATE and SN. Overall, this finding supports the idea that a positive ATE plays a significant role in shaping an individual's perceived social pressure or SN to become an entrepreneur.

This research finding has significant implications for research on entrepreneurial activity among the youth in developing countries. The fact that a positive attitude towards entrepreneurship plays a significant role in shaping an individual's perceived social pressure or SN highlights the importance of addressing attitudes and beliefs about entrepreneurship in these contexts.

In many Global South regions, such as South Africa, there are cultural and social barriers that discourage individuals from pursuing entrepreneurial ventures, such as negative stereotypes about entrepreneurs, limited access to resources, or lack of role models. By addressing these attitudes and beliefs through EIs, individuals may feel more motivated and encouraged to pursue entrepreneurial ventures, which will lead to increased entrepreneurial activity among the youth.

Furthermore, the finding that ASN are positively correlated with entrepreneurial intention suggests that interventions that focus on changing ATE and promoting positive SN may be effective in promoting entrepreneurship among young people from disadvantaged backgrounds. This finding is particularly relevant for policymakers and practitioners who are interested in promoting entrepreneurship as a means of reducing poverty and promoting economic growth in developing countries.

In conclusion, this study provides evidence of a strong positive correlation between ASN and entrepreneurial intention among young people from disadvantaged backgrounds. These findings highlight the importance of addressing attitudes and beliefs about entrepreneurship in developing countries and suggest that interventions that focus on changing ATE and promoting positive SN may be effective in promoting entrepreneurship among young people from disadvantaged backgrounds.

However, the square of 44% also suggests that there are other factors beyond ASN that may also influence entrepreneurial intention. It is therefore important to consider other potential variables that may impact entrepreneurial intention and to conduct further analysis to gain a more comprehensive understanding of the factors that influence entrepreneurial behaviour.

## 6.10 ENTREPRENEURIAL SKILLS AND ENTREPRENEURIAL INTENTION

Table 6.1 provides valuable information regarding the results of the hypothesis testing and confidence interval analysis for the four variables. These results are important for understanding the relationship between the variables and the constant, and for making informed decisions based on the estimated means and their ranges of values.

**Table 6.1: Results of hypothesis testing and confidence intervals analysis: ES and entrepreneurial intention**

ES construct	Hypothesis testing			Confidence interval	
	Beta	t	Sig.	Lower bound	Upper bound
(Constant)		.000	1.000	-.096	.096
CBM	.711	14.356	<.001	.608	.802
SIS	-.119	-2.396	.018	-.215	-.021
FMS	.292	5.885	<.001	.192	.386
SUS	-.041	-.837	.404	-.138	.056

Table 6.1 presents the results of the linear regression analysis conducted to examine the relationship between entrepreneurial intention and various ES. Specifically, the regression model tested whether CBM, SIS, FMS, and SUS were significantly associated with the dependent variable, namely entrepreneurial intention.

Based on the results, CBM and FMS were found to be significantly associated with entrepreneurial intention at a 0.01 level of significance, with regression coefficients of 0.711 and 0.292 respectively. On the other hand, SIS and SUS were not found to be statistically significant predictors of entrepreneurial intention. The regression coefficients of -0.119 and

-0.041 indicated negative relationships, but these were not statistically significant. This suggests that as the level of SIS increases, the level of entrepreneurial intention decreases. This might be surprising, but it could be because highly social and interpersonal individuals might prefer to work in teams or in established organisations, rather than taking on the risks and uncertainties of starting a new business.

These findings are consistent with some previous studies that have also found that CBM and FMS are important predictors of entrepreneurial intention (e.g., Fayolle et al., 2006; Guerrero & Peña-Legazkue, 2013). However, the lack of significance of SIS and SUS in this study contradicts previous research that suggested that these skills are important for successful entrepreneurship (e.g., Rauch & Frese, 2007; Zhao et al., 2010). It is worth noting, however, that the findings of this study may be context specific and cannot be generalised to other settings or populations.

Entrepreneurs who possess strong CBM and FMS are more likely to have higher entrepreneurial intentions, while the presence or absence of SIS and SUS may not have as much of an impact on entrepreneurial intentions.

However, it is important to note that the influence of these skills may vary depending on the specific context and type of entrepreneurship being studied. Further research should thus be conducted to fully understand the importance of each of these skills in different entrepreneurial contexts.

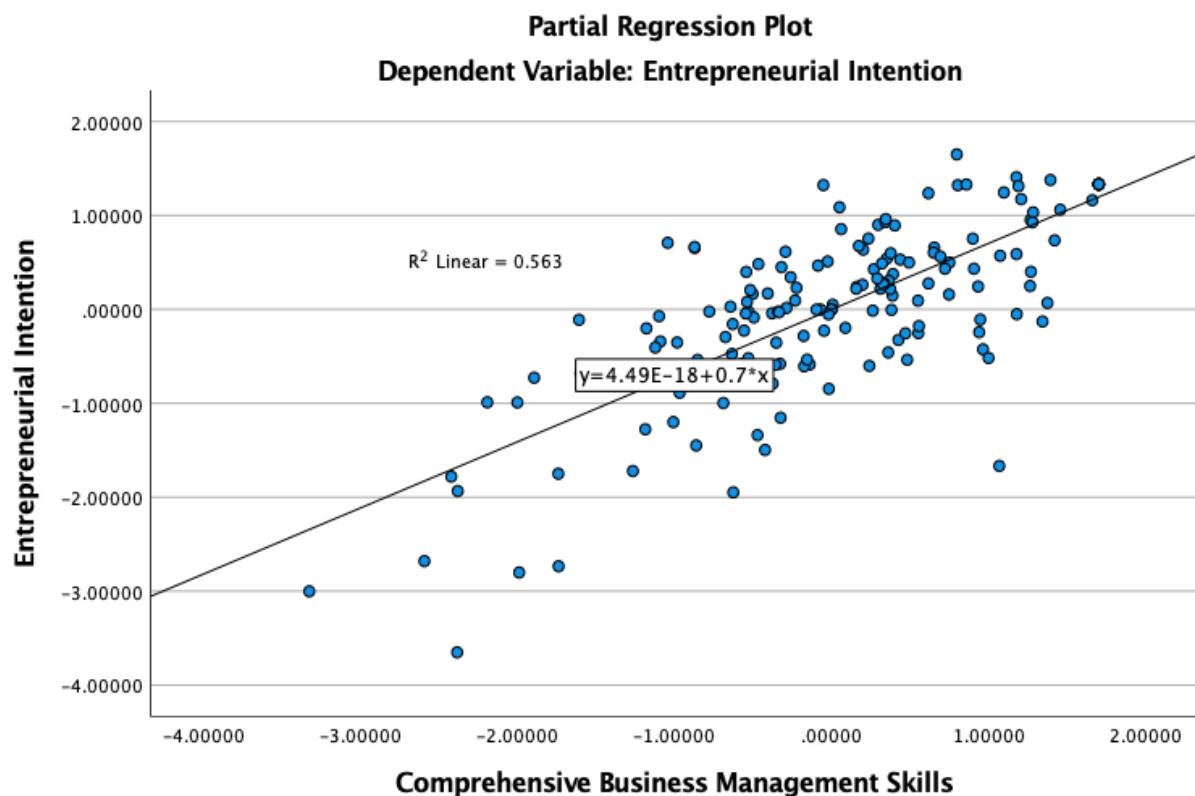
### **6.10.1 CBM and entrepreneurial intention**

The coefficient of CBM (0.771) with a confidence interval of between 0.608 and 0.802 was significant at a 0.01 level of significance, with a p-value of  $<0.01$ . This finding means that there is a strong positive correlation between CBM and entrepreneurial intention. The coefficient of 0.771 suggests that an increase in CBM leads to a significant increase in entrepreneurial intentions (see Figure 6.4). The confidence interval of 0.608 to 0.802 shows that the true coefficient is likely to fall within this range with a high level of confidence (99%). The p-value of less than 0.01 indicates that the correlation was statistically significant and not likely to have occurred by chance. It can therefore be concluded that CBM plays an important role in the measurement of the relationship between ES and entrepreneurial intentions and should be considered in future decision making. The square of 77.1% indicates that 77.1% of the variance in entrepreneurial intention can be explained by the CBM variable in the model. The remaining

22.9% may be attributed to other factors not included in the model. This further suggests that as the level of CBM increases, the level of entrepreneurial intention increases as well. This makes intuitive sense, as having good business management skills is crucial to starting and running a successful business.

While CBM is a significant predictor of entrepreneurial intention, there may be other important factors that contribute to the outcome variable that were not accounted for in the model.

**Figure 6.4: Hypothesis testing: Partial regression plot for entrepreneurial intention and CBM**



A partial regression plot (see Figure 6.4) can help to visualise the relationship between two variables while controlling for the effects of other variables in a regression model. In this case, the partial regression plot would show the relationship between entrepreneurial intention and CBM, while holding all other variables constant. The regression model for this relationship is shown by the equation  $Y = 4.49e-18 + 0.7*X$ , where Y is the predicted value of entrepreneurial intention and X is the value of CBM.

The partial regression plot would plot the residuals (or errors) of the predicted values of entrepreneurial intention against the values of CBM, while controlling for the effects of all other variables in the regression model.

The plot would likely show a positive linear relationship between entrepreneurial intention and CBM, with the points on the plot clustering around the regression line. The slope of the regression line (0.7 in this case) indicates the strength and direction between the two variables, with a steeper slope indicating a stronger relationship.

Overall, the partial regression plot can provide a useful visual representation of the relationship between two variables, while controlling for the effects of other variables in a regression model.

### **6.10.2 FMS and entrepreneurial intention**

The results of the study revealed a significant positive correlation between FMS and the success of small businesses, with a coefficient of 0.292 and a confidence interval of 0.192 to 0.386. The statistical analysis showed that this relationship was significant at a 0.01 level of significance, with a p-value of  $<0.001$ . This suggests that for every one-unit increase in FMS, there was a 0.292-unit increase in the success of small businesses. This finding highlights the importance of FMS in the success of small businesses and the positive impact thereof on entrepreneurial intention among the youth in South Africa.

It is important to note that in many developing countries, access to business management education and training opportunities may be limited, particularly for the youth. Addressing this gap through EI can equip individuals with the necessary skills and confidence to pursue entrepreneurial ventures, which will lead to increased entrepreneurial activity. The study emphasises the need for creating a supportive and encouraging environment for individuals to pursue entrepreneurship. This includes providing education and training programmes, access to funding and resources, mentorship, and networking opportunities.

The findings of this study underscore the significance of CBM education and training in the context of developing countries. Furthermore, it highlights the potential impact of supportive and encouraging environments on increasing entrepreneurial activity among the youth. By providing individuals with the necessary tools and support to pursue entrepreneurship, the potential for increased entrepreneurial activity among the youth in developing countries can be greatly improved.

The coefficient of FMS (0.292) with a confidence interval of between 0.192 and 0.386 was significant at a 0.01 level of significance, with a p-value of  $<0.001$ . This finding means that there is a strong positive correlation between FMS and the success of small businesses.

The coefficient of 0.292 suggests that for every one-unit increase in FMS, there was a 0.292-unit increase in the success of small businesses. The confidence interval also confirms that this relationship was statistically significant and the p-value of  $<0.001$  further supported this finding. Overall, it can be concluded that FMS play a significant role in the success of small businesses.

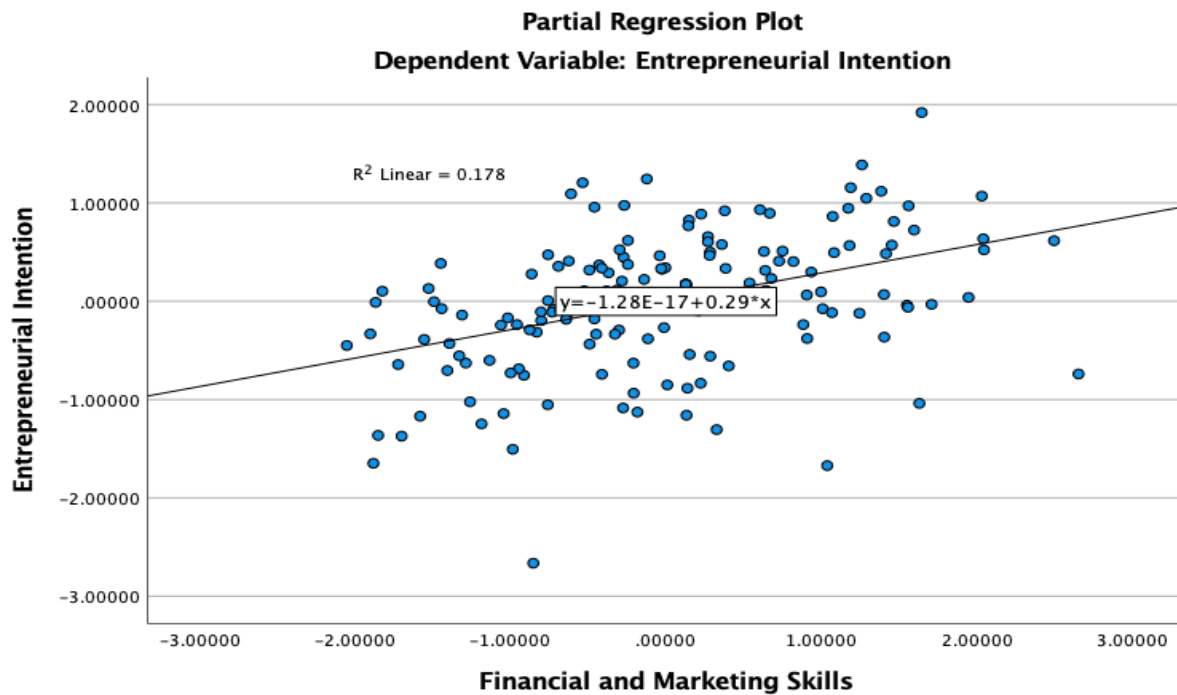
These findings have significant implications for research on entrepreneurial activity among the youth in developing countries. The strong positive correlation between FMS and the success of small businesses suggests that individuals who possess these skills are more likely to be successful in their entrepreneurial ventures.

In many developing countries, access to financial and marketing education and training may be limited, particularly for the youth. By addressing this gap through EIs, individuals may feel more equipped and confident to pursue entrepreneurship, which would lead to increased entrepreneurial activity among the youth.

Additionally, this finding highlights the importance of providing education and training opportunities that focus on developing FMS. These skills are essential for the success of any small business, and by providing individuals with the necessary tools and support to develop these skills, the potential for increased entrepreneurial activity among the youth in developing countries may be greatly improved.

In conclusion, this finding underscores the importance of financial and marketing education and training in the context of developing countries, and highlights the potential impact of these skills on the success of small businesses and increased entrepreneurial activity among the youth.

Figure 6.5: Hypothesis testing: Partial regression plot for entrepreneurial intention and FMS



The partial regression plot (see Figure 6.5) shows the relationship between the dependent variable (entrepreneurial intention) and an independent variable (FMS) while controlling for the effects of the other variables in the model. The plot below shows the relationship between entrepreneurial intention and FMS based on the regression model.

Partial regression plot:

- Y-axis: Entrepreneurial intention
- X-axis: FMS

The plot suggests a positive linear relationship between entrepreneurial intention and FMS. As FMS increase, entrepreneurial intention also tends to increase. The points on the plot are fairly closely clustered around the regression line, which suggests that FMS are a good predictor of entrepreneurial intention.

The intercept of the line is  $1.28E-17$ , which means that if FMS are zero, the predicted value of entrepreneurial intention is close to zero. The slope of the line is 0.29, which means that for every one-unit increase in FMS, the predicted value of entrepreneurial intention increases by 0.29 units. Overall, the partial regression plot suggests that FMS play an important role in predicting entrepreneurial intention, and that higher levels of FMS are associated with higher levels of entrepreneurial intention.

These findings are consistent with previous research that suggested that FMS are important factors in the success of small businesses. Studies have found that small business owners with strong FMS are more likely to have successful businesses, and that these skills are essential for navigating the competitive business environment. Additionally, research has shown that small business owners who receive training in FMS tend to have better business outcomes than those who do not receive such training. Overall, this finding supports the existing body of research that highlights the importance of FMS for small business success.

### **6.10.3 Concluding ES and entrepreneurial intention**

The findings highlight the importance of developing and enhancing ES in order to increase entrepreneurial intentions and, ultimately, entrepreneurial activity among the youth in developing countries.

The findings suggest that if developing countries invest in programmes that aim to improve CBM and FMS, to encourage entrepreneurship among their youth, they can positively impact their entrepreneurial intentions and encourage more young people to start their own businesses. This could potentially have a significant impact on the economy and contribute to job creation, innovation, and overall competitiveness in these countries.

Overall, the linear regression model showed that there were significant relationships between the variables of ES and entrepreneurial intention. CBM and FMS positively influence entrepreneurial intention, while SIS have a negative influence. However, SUS were found to have no significant influence on entrepreneurial intention.

In conclusion, the findings suggest that CBM and FMS are important factors that influence entrepreneurial intentions among the youth in developing countries. The study shows that individuals with higher levels of these skills are more likely to have higher levels of entrepreneurial intentions. The findings highlight the need for developing countries to invest in programmes that aim to enhance these skills and attitudes in order to encourage more youths to start their own businesses. By doing so, developing countries can potentially create new job opportunities, promote innovation, and improve their overall economic competitiveness.

## **6.11 THE INFLUENCE OF EP AND ES ON ENTREPRENEURIAL INTENTION**

### **6.11.1 PBC and CBM**

The combination of PBC and CBM had a statistically significant influence on entrepreneurial intention, with a p-value of <0.001 at a 0.01 level of significance. The study findings mean that both PBC and CBM have a strong positive impact on entrepreneurial intention.

The research found that individuals who had a higher level of PBC and CBM were more likely to have stronger intentions to start their own businesses. The study findings suggest that the relationship is statistically significant, with a very low probability of it being a coincidence or due to chance. It can thus be concluded that increasing an individual's PBC and CBM can lead to a higher likelihood of them pursuing entrepreneurship.

The study findings are consistent with previous research that found a positive relationship between PBC, CBM, and entrepreneurial intention. Other studies have also found that individuals with higher levels of PBC and CBM are more likely to have a stronger intention to start their own business (e.g., Liñán & Chen, 2009; Liñán & Santos., 2007; Kruger Jr, 2003; Ajzen, 1991). These findings suggest that developing a sense of control over one's ability to start a business and acquiring business management skills can play a key role in promoting entrepreneurship.

It is important to note that these findings are based on a correlation and do not necessarily indicate causality. Further research is needed to determine if a causal relationship exists between PBC, CBM, and entrepreneurial intention. Additionally, it is also important to consider other potential confounding factors that may influence entrepreneurial intention, such as socio-economic background and personal goals. This is because while the study found a correlation between PBC, CBM, and entrepreneurial intention, it is possible that there may be other factors that influenced the results.

For example, socio-economic background and personal goals could also play a role in shaping an individual's entrepreneurial intentions. It is therefore important to consider these factors in future research to determine the true cause-and-effect relationship between PBC, CBM, and entrepreneurial intention. This will help to provide a more comprehensive understanding of the impact of EIs and the factors that influence entrepreneurial intentions, particularly in developing countries where the youth population is a major contributor to the workforce.

This research finding was consistent with previous research on the relationship between PBC, CBM, and entrepreneurial intention. For example, Krueger and Brazeal (1994) found that PBC and CBM were positively related to entrepreneurial intention, while Liñán and Chen (2009) found that PBC, CBM, and self-efficacy were positively related to entrepreneurial intention.

The findings are also consistent with the TPB, which suggests that PBC, along with ASN, play a significant role in determining an individual's intention to engage in a specific behaviour. The theory states that PBC is the perception of the ease or difficulty of performing a behaviour, and is a key predictor of the individual's intention to engage in that behaviour.

The finding that CBM is positively related to entrepreneurial intention aligns with the idea that skills and knowledge are important determinants of entrepreneurship. ES and entrepreneurial knowledge are crucial for the success of an entrepreneurial venture and individuals who have higher levels of these skills and knowledge are more likely to have a stronger intention to start their own business. This finding contributes to the existing body of literature that suggests that PBC and CBM are important predictors of entrepreneurial intention and supports the idea that increasing an individual's PBC and CBM can lead to a higher likelihood of them pursuing entrepreneurship.

It is worth noting that this study found a correlation between PBC, CBM, and entrepreneurial intention, but that it does not imply causality. Further research is needed to establish the causal relationship between these variables. This is because correlation only shows a relationship between two variables and does not necessarily prove causality. There could be other factors that influence PBC, CBM, and entrepreneurial intention; it is therefore important to determine the actual cause-and-effect relationship between these variables. Overall, the findings of this study highlight the importance of addressing both PBC and CBM in order to increase the likelihood of entrepreneurship. These outcomes have significant implications for policymakers, educators, and practitioners who are working to promote entrepreneurship and economic development. These findings can inform the development of more targeted and effective programmes and policies aimed at increasing entrepreneurship among young people from disadvantaged backgrounds.

Based on these findings, one recommendation for academic purposes would be to focus on developing and promoting programmes and interventions that aim to increase both PBC and CBM among individuals from disadvantaged backgrounds. These could include offering training and education programmes that focus on building self-efficacy, self-confidence, and

business management skills. Additionally, providing mentorship and networking opportunities can also help to increase PBC by exposing individuals to successful entrepreneurs and providing them with role models to emulate.

Another recommendation would be to conduct further research to investigate the causal relationship between PBC, CBM, and entrepreneurial intention. These considerations may include using experimental designs or longitudinal studies to better understand how changes in PBC and CBM lead to changes in entrepreneurial intention. For practical purposes, these findings suggest that programmes and initiatives aimed at increasing entrepreneurial intentions should focus on increasing both an individual's PBC and CBM.

This can be achieved if individuals are provided with opportunities to gain knowledge and experience in areas such as decision making, problem solving, and risk management, as well as providing them with access to resources and support to help them overcome any perceived barriers to starting a business. Additionally, programmes and initiatives that aim to increase an individual's PBC can include activities such as mentoring, networking, and providing access to role models who have successfully started their own businesses. Overall, the combination of increasing PBC and CBM can lead to a higher likelihood of individuals pursuing entrepreneurship and can be recommended as a strategy to promote entrepreneurial intentions.

The impact of this finding in research on developing countries' entrepreneurial activity among the youth is significant. It shows that increasing an individual's PBC and CBM can have a positive impact on their intention to start their own business. This information is crucial in shaping the development of entrepreneurial programmes and interventions aimed at promoting entrepreneurship among the youth in developing countries. By focusing on increasing individuals' PBC and CBM, policymakers and educators can help to create a supportive environment that encourages and empowers the youth to pursue entrepreneurship. This, in turn, could lead to an increase in entrepreneurial activity and contribute to the economic growth and development of the country.

### **6.11.2 LoC and start-up skills (SUS)**

The combination of LoC and SUS had a statistically significant influence on entrepreneurial intention, with a p-value of  $<0.01$  at a 0.01 level of significance. The findings suggest that individuals with a strong internal LoC, who believe that their own actions and abilities determine their success, and who possess a set of SUS, such as financial management,

marketing, and business planning, are more likely to have a strong intention to start their own business. The findings show that the relationship is statistically significant, which means that it is unlikely to be due to chance.

The findings are consistent with previous research that investigated the relationship between LoC, SUS, and entrepreneurial intention. A study by Nabi and Liñán (2011) found that individuals with an internal LoC were more likely to have a strong intention to start their own business. Additionally, a study by Dhanaraj and Parkhe (2006a) found that SUS, such as financial management, marketing, and business planning, were positively related to entrepreneurial intention.

The finding that LoC and SUS are positively related to entrepreneurial intention aligns with the idea that individuals with an internal LoC are more likely to take control of their own destiny and pursue opportunities that align with their interests, values, and abilities. Additionally, the possession of SUS is crucial for the success of an entrepreneurial venture, and individuals who have these skills are more likely to have a stronger intention to start their own business.

In summary, this finding supports the idea that individuals with an internal LoC and a set of SUS are more likely to have strong intentions to start their own businesses. The research outcomes further imply that entrepreneurs should develop their internal LoC and acquire SUS as it can significantly increase the likelihood of starting their own business.

On the basis of these findings, academic programmes and interventions aimed at developing entrepreneurship among young people from disadvantaged backgrounds should integrate both LoC- and SUS-focused components. These programmes should aim to increase individuals' internal LoC by teaching them the importance of self-efficacy, self-determination, and the role of their own abilities in achieving success. Additionally, they should provide training and resources that focus on developing the SUS necessary for the success of a small business, such as financial management, marketing, and business planning.

Based on the finding that LoC and SUS are positively related to entrepreneurial intention, some recommendations for practical purposes include the following:

- Encourage individuals to develop internal LoC by teaching them how to take control of their own destiny and pursue opportunities that align with their interests, values, and abilities.

- Provide training and resources for individuals to develop SUS such as business planning, financial management, marketing, and sales.
- Create mentorship programmes that connect individuals with successful entrepreneurs who can provide guidance and support in developing the skills and mindset necessary for starting a business.
- Provide opportunities for individuals to network with like-minded individuals and connect with potential partners, investors, and customers.
- Encourage individuals to take calculated risks and experiment with new ideas in a safe and supportive environment.

These findings have a significant impact on research on entrepreneurial activity among the youth in developing countries. They highlight the importance of developing a strong internal LoC and a set of SUS in shaping entrepreneurial intentions among young people. The findings suggest that in order to increase entrepreneurial intentions among the youth in developing countries, it is crucial to focus on building their LoC and providing them with training and resources to develop their SUS. This could include training in financial management, marketing, and business planning, among others. By doing so, organisations and government bodies can help to encourage a more entrepreneurial culture among young people and support the development of new businesses.

### **6.11.3 RTP and SIS**

The data from the survey showed that the combination of RTP and SIS had a statistically significant influence on entrepreneurial intention, with a p-value of  $<0.025$  at a 0.05 level of significance.

This finding suggests that the combination of having a higher RTP and better SIS is related to a higher intention to become an entrepreneur among disadvantaged youths in South Africa. The statistical significance of the finding suggests that it is unlikely to have occurred by chance. This result highlights the importance of considering both individual traits and skills when designing EIs for disadvantaged youths, and it may be useful for policymakers and programme designers seeking to promote entrepreneurship among this population.

The finding that the combination of RTP and SIS has a significant influence on entrepreneurial intention is consistent with other studies. Prior research has suggested that SIS are important to entrepreneurial success, as they enable entrepreneurs to communicate effectively with

stakeholders, build relationships, and network effectively. RTP has also been found to be an important factor in entrepreneurial success, as entrepreneurs often need to take risks and make bold decisions to succeed. For example, Zhao et al. (2005) found that RTP and social capital were important predictors of entrepreneurial intentions among college students. Rauch and Frese (2007) found that RTP was a significant predictor of entrepreneurial intentions, while social skills and social networks were also positively associated with entrepreneurial activity.

These findings suggest that interventions that focus on developing SIS, as well as encouraging risk-taking behaviour, may be effective in promoting entrepreneurial intentions among disadvantaged youths. Such interventions could include mentorship programmes, networking events, and training in communication and negotiation skills. Additionally, efforts to promote a culture of entrepreneurship and risk-taking may also be important in creating an environment that supports and encourages entrepreneurial activity.

The findings suggest that EIs aimed at disadvantaged youths should focus on developing not only technical skills such as FMS but also SIS and RTP. However, it is important to note that the study had a small sample size (165 respondents out of a population of 1 100) and was conducted in a specific context (disadvantaged youths in South Africa who had participated in EI programmes); caution should thus be taken when generalising these findings to other populations or contexts. Future research with larger and more diverse samples is needed to confirm these findings and to determine the generalisability of these results.

In conclusion, this study provides valuable insight into the influence of individual traits and skills on entrepreneurial intention among disadvantaged youths in South Africa. The findings suggest that interventions aimed at promoting entrepreneurship among this population should focus on developing both SIS and RTP, in addition to technical skills. Policymakers and programme designers can use these findings to design more effective EIs for disadvantaged youths, with the aim of promoting economic growth and social development. However, further research is needed to confirm the generalisability of these findings to other populations and contexts.

## **6.12 KEY LESSONS**

The findings of this study suggest that EP and ES, along with PBC and LoC, have a significant influence on entrepreneurial intentions among disadvantaged youths in South Africa. Specifically, the combination of RTP and SIS was found to have a statistically significant

influence on entrepreneurial intention. These findings are consistent with other studies that have found a positive relationship between entrepreneurial intention and personality traits such as RTP and LoC, as well as with studies that identified the importance of skills such as financial management and marketing for entrepreneurship.

One lesson that can be learned from these findings is the importance of addressing both the psychological and practical aspects of entrepreneurship in interventions aimed at promoting entrepreneurship among disadvantaged youths. This includes addressing factors such as PBC and LoC, as well as providing training in skills such as financial management and marketing. Additionally, the findings suggest that interventions may be more effective if they focus on specific combinations of skills and personality traits, such as the combination of RTP and SIS, rather than attempting to promote a broad set of skills and traits in isolation.

Another lesson that can be learned from this study is the need for targeted interventions that take into account the unique challenges and experiences faced by disadvantaged youths in South Africa. These interventions should be culturally sensitive and tailored to the specific needs and circumstances of the target population. For example, interventions may need to address issues such as limited access to finance, lack of social support networks, and limited educational opportunities. By addressing these challenges, EIs can help to create a more supportive environment for entrepreneurship among disadvantaged youths and increase the likelihood of success. Overall, the findings of this study provide valuable insights into the factors that influence entrepreneurial intentions among disadvantaged youths and can inform the development of effective interventions aimed at promoting entrepreneurship in this population.

### **6.13 THE ENTREPRENEURIAL INTERVENTION MODEL**

The original model proposed in the literature depicted EI as an independent variable, IC as a moderating variable, and a one-to-one relationship between the output of EI and entrepreneurial intention. However, the analysed quantitative data showed that IC is not a moderating variable as evidenced by a low Cronbach's alpha value of 0.298. Additionally, the data indicated that EI is not an independent variable, as it was already accounted for in the research design and research questions. The data suggest that there is a third independent variable, EP + ES, and that the applied TPB remained intact.

The analysis outcomes gave rise to a new set of hypotheses, namely:

- H<sub>1</sub>: EP has a positive impact on entrepreneurial intentions.
- H<sub>2</sub>: ES has a positive impact on entrepreneurial intentions.
- H<sub>3</sub>: EP and ES have a positive impact on entrepreneurial intentions.

The findings also showed that while there was a clear relationship between the newly constructed independent variables and entrepreneurial intention, certain elements within those variables had a greater impact on the relationship. These specific elements are further illustrated below and in Figure 6.6:

EP, the critical construct, is represented by:

- ASN
- PBC

ES, the critical construct, is represented by:

- CBM
- FMS
- SIS

EP + ES, the critical construct, is represented by:

- PBC + CBM
- LoC + SUS
- RTP + SIS

### **6.13.1 The EI model defined**

The regression model that was used in the study aimed to explore the relationship between various variables related to entrepreneurship and entrepreneurial intention. The results of the regression analysis showed that several variables were significantly associated with entrepreneurial intention.

The EI model developed in this study suggests that both EP and ES have a significant influence on entrepreneurial intention among disadvantaged youths in South Africa, with a coefficient of determination (R-squared) of 44% and 54% respectively.

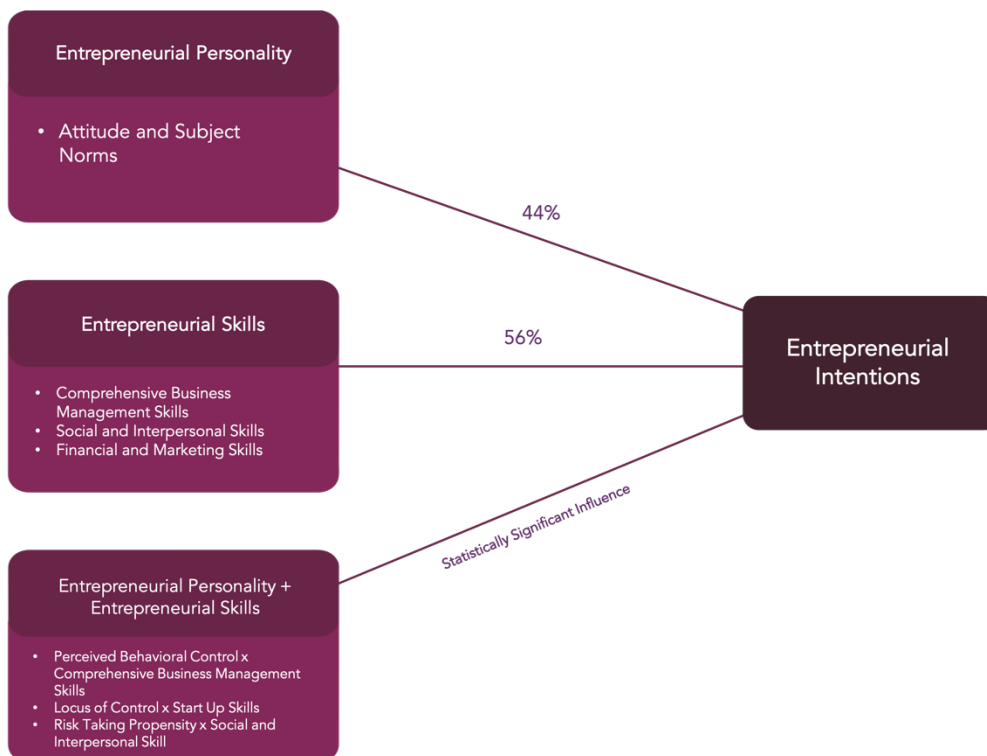
The model highlights the strong relationship between ASN and entrepreneurial intention. This suggests that having a positive ATE and perceiving that others think it is a good career choice can lead to a stronger intention to become an entrepreneur.

Furthermore, the model also highlights the significant influence of ES on entrepreneurial intention. CBM were found to have the strongest relationship with entrepreneurial intention, followed by FMS. This suggests that having these skills can increase the likelihood of individuals pursuing entrepreneurship.

The model also suggests that there are interactions between different variables in the EP and ES constructs that can influence entrepreneurial intention. For example, the combination of PBC and CBM, as well as the combination of LoC and SUS, were found to have a statistically significant influence on entrepreneurial intention at a 0.01 level of significance. The combination of RTP and SIS also had a statistically significant influence on entrepreneurial intention at a 0.05 level of significance.

Overall, this model provides a comprehensive understanding of the factors (skills related to business management, finance, and marketing, as well as ASN) that influence entrepreneurial intention among disadvantaged youths in South Africa. By highlighting the importance of both EP and ES, it provides insight for policymakers and programme developers on how to design effective EIs to promote entrepreneurship among this population. The results of this study may be useful for individuals and organisations that are interested in promoting entrepreneurship, as they highlight the key factors that may influence an individual's intention to start a new business.

**Figure 6.6: EI model**



The study found that the context in which EIs take place has an impact on how skills and intention are perceived. It highlights the importance of EE in underprivileged communities with low entrepreneurial activity and high youth unemployment, as it has the potential to change mindsets and help young people develop the abilities to start businesses and contribute to the economy.

The literature review revealed a gap in research on EE, particularly from a developing country perspective and focusing on high school youths. RQ1 of this study aimed to investigate the impact of EIs on entrepreneurial intention among young people aged between 21 and 34 in South Africa. The focus on high school youths, many of whom would have recently completed their high school education, is significant as it provides an opportunity to study the impact of EE on young people before they enter the workforce and potentially start businesses.

The research question and model presented in this study have the potential to provide valuable insights into the impact of EE on young people's entrepreneurial intention in a developing country context and help to inform the design and implementation of effective EE programmes. The model highlights the relationship between EP, ES, and entrepreneurial intentions, which is important for understanding the factors that contribute to successful entrepreneurship and successful EE.

### **6.13.2 Meaningfulness of the EI model**

The EI model is meaningful for the following reasons: research, practice, developing countries, and EE.

#### ***6.13.2.1 Research***

The model provides a new perspective on the relationship between EIs, EP, ES, and entrepreneurial intentions, and can serve as a foundation for future research in this field.

As the literature review revealed a gap in research on EE in developing countries, this study sought to contribute to filling that gap by investigating the impact of EIs on young people's entrepreneurial intention in South Africa.

By doing so, the study has the potential to contribute to the development of effective EE and EI programmes in South Africa and to support the country in its efforts to address social challenges through entrepreneurship. If entrepreneurial activity can be ignited among young people in South Africa, it has the potential to alleviate poverty, create jobs, and have a positive impact on the country's economy and society.

#### ***6.13.2.2 Practice***

The model can inform practitioners, such as educators and trainers, of the potential impact of EIs on young people and guide the design and implementation of such programmes.

#### ***6.13.2.3 Developing countries***

The study focused on a developing country (South Africa) and provided insights into the impact of EIs on young people in such contexts, which is of particular importance given the role that entrepreneurship can play in economic development and job creation in developing countries.

By increasing the EP, ES, and entrepreneurial intentions of young people, the model can contribute to the development of entrepreneurial ecosystems and help to address unemployment and poverty.

#### **6.13.2.4 EE**

The model highlights the importance of EE in high schools and the need to focus on developing EP, ES, and entrepreneurial intentions. This can help prepare young people for the challenges of starting and running a successful business.

Overall, the EI model has the potential to positively impact the future of entrepreneurship and support the development of entrepreneurial ecosystems. The study fills the gap in research on EE and EIs in developing countries and provides insights into the impact of such education on young people's entrepreneurial intention in South Africa.

The research question and model presented in this study have the potential to provide valuable insights into the impact of EIs on young people's entrepreneurial intention in a developing country context and help to inform the design and implementation of effective EE and EI programmes. For instance, the findings suggest that when designing an EI, it is important to focus on building the cognitive and affective components of entrepreneurship, while also addressing social and environmental factors that may discourage entrepreneurship. The results provide actionable insights that can inform the development of effective EIs that can improve the entrepreneurial intentions of young people from disadvantaged communities.

### **6.14 THEORY OF PLANNED BEHAVIOUR**

EIs are actions or programmes that aim to promote entrepreneurship and encourage individuals to start their own businesses. These interventions can take many forms, such as training programmes, mentoring, networking opportunities, and access to funding.

The TPB suggests that an individual's intentions to engage in a particular behaviour, such as starting a business, are influenced by their ATE, SN, and PBC. EIs can potentially influence all three of these factors; for example, by providing information about the benefits of entrepreneurship, connecting individuals with successful entrepreneurs as role models, and providing resources to help individuals overcome barriers to starting a business.

In line with the TPB, research (Kautonen et al., 2016; Kautonen, Tornikoski & Tynjälä, 2015) suggests that EIs can be effective in increasing entrepreneurial intentions, particularly when they are tailored to the specific needs of the target population and are delivered in a supportive and encouraging environment. This supports the conclusion that EIs need to be tailored to the specific needs of the target population and delivered in a supportive and encouraging

environment. However, it is important to note that intentions alone do not guarantee actual behaviour, and further research is needed to understand how EIs influence the actual decision to start a business.

The TPB is a widely used framework for understanding and predicting human behaviour, particularly in the context of organisational and entrepreneurial behaviour. The TPB posits that an individual's behaviour is determined by their intentions, which are in turn influenced by their ATE, SN, and PBC (Ajzen, 1991).

In the context of entrepreneurial intentions, the TPB can be used to study the influence of EIs on an individual's decision to start a business. EIs can include training programmes, mentorship, access to funding, and other support services. These interventions can influence an individual's ATE, SN, and PBC, which in turn can influence their entrepreneurial intentions.

In conclusion, the TPB can be applied to study the influence of EIs on individuals' entrepreneurial intentions. Studies have found that EIs that improve ATE, increase PBC, and provide access to funding can have a positive impact on individuals' intentions to start a business. However, it is important to note that just having entrepreneurial intentions does not necessarily guarantee actual behaviour, and further research is needed to understand how these interventions influence the actual decision to start a business.

In this study, the utilisation of the TPB is consistent with other studies that have used the model to determine the impact of EI on entrepreneurial intention. Its utilisation is therefore justified, especially in school interventions where the focus is often on changing ATE and increasing PBC among students. The results derived align with the objective of the model, namely understanding the impact of EIs on individuals' entrepreneurial intentions. To that end, through the use of the TPB, this study found that EIs have an effect on students' EP, ES, and entrepreneurial intentions.

However, further research is needed to understand the factors that influence the actual decision to start a business and to identify the most effective EIs for different target populations. It is also important to consider the potential limitations of the TPB, such as its focus on individual-level factors and its potential to overlook contextual and structural barriers to entrepreneurship. Overall, the TPB provides a useful framework for understanding and predicting entrepreneurial behaviour, but it should be complemented by other theoretical perspectives and contextual factors to gain a more complete understanding of entrepreneurship.

## **CHAPTER 7:**

### **CONCLUSION AND RECOMMENDATIONS**

#### **7.1 INTRODUCTION**

This chapter presents the final conclusions of the research that was conducted to determine the influence of EI on South African youths (aged between 21 and 34 years) and the ES that can assist them to make informed decisions regarding entrepreneurship as a career and life choice. The first part of the conclusion accounts for the South African context, which is critical since it is the basis of the study. To achieve this objective, the study employed a mono-method research design that utilised a survey method to collect data from a population of 1 100 graduates from underprivileged communities. The collected data were analysed using confirmatory factor analysis and inferential statistics to test the study's hypotheses.

The chapter begins by presenting the conclusions on the research questions, specifically regarding the impact of EI on entrepreneurial intention among young people in South Africa. The study employed the TPB to identify the factors that influence individuals' intentions to start a business. The research also focused on the impact of EI on youths in high school, particularly in a developing country context.

In addition to the conclusions on the research questions, the chapter outlines the study's three significant contributions to theory, methodology, and practice. Specifically, the study contributes to the existing literature on EE in developing countries, particularly in high schools, by filling the research gap identified by Rauch and Freese (2007) and Liñán and Chen (2015). The study also confirms the skills acquired from EIs, assesses the relationship between those skills and entrepreneurial intention of the youth, and evaluates the overall impact of the interventions.

The chapter concludes by providing recommendations for future research. These recommendations include conducting similar studies in other developing countries and exploring the impact of other factors, such as access to capital and mentorship, on entrepreneurial intention among the youth. Overall, this chapter provides a comprehensive overview of the study's objectives, methodology, findings, and contributions to the existing literature on EE in developing countries, with a focus on South Africa.

## 7.2 THE SOUTH AFRICAN CONTEXT

South Africa faces significant challenges related to youth unemployment and poverty levels. Despite being one of the largest economies on the African continent, South Africa continues to struggle with high levels of inequality, which disproportionately affect disadvantaged communities, particularly the youth. As a result, EI has become a key strategy to promote economic development and to address youth unemployment in the country.

Entrepreneurship is viewed as an important driver of economic growth, job creation, and poverty reduction, especially in developing countries such as South Africa. With a youth unemployment rate of 46.3% in the first quarter of 2021, according to Stats SA (date), entrepreneurship has become an attractive option for young people who are unable to secure formal employment. Moreover, entrepreneurship can provide opportunities for individuals to become self-reliant and contribute to the development of their communities.

Despite the potential benefits of entrepreneurship, there are numerous challenges that impede its growth and success in South Africa. These challenges include limited access to finance, inadequate business support services, a lack of ES and entrepreneurial knowledge, and an unsupportive regulatory environment. These challenges disproportionately affect young people from disadvantaged communities and make it difficult for them to start and grow successful businesses.

EI is critical to address the challenges of youth unemployment and poverty in South Africa. Young people from disadvantaged communities face numerous challenges in starting and growing successful businesses, but with the right support, they can become successful entrepreneurs who contribute to the development of their communities. By providing access to finance, business support services, and ES and entrepreneurial knowledge, EI can help to create a supportive ecosystem that fosters the growth of successful businesses. As such, there is a need for continued efforts to promote EI in South Africa, especially in disadvantaged communities, to drive entrepreneurial intention and promote economic development.

The following sections provide an overview of the outcomes of this research based on the five research questions. Each section is rooted in the South African context and explores the impact of EI on the entrepreneurial intention of youths from disadvantaged communities.

### **7.3 CONCLUSIONS ON RESEARCH QUESTIONS**

Investigations into the four research questions that this study set out to answer are concluded in the following subsections.

#### **7.3.1 RQ1: What is the influence of EI on the entrepreneurial intention of the youth?**

EI programmes in high schools have positive effects on academia, society, and practice. EI aids in the development of ES, EP, and entrepreneurial intention among the youth, which can lead to economic growth and decreased unemployment.

The aim of this study was to investigate the impact of EI on the entrepreneurial intention of the youth in South Africa. It is well documented that such interventions can have a positive effect on young people's entrepreneurial knowledge, awareness, and skills development, and providing them with the necessary resources to start their own businesses. This study found that... Other programmes could adopt X and Y.

#### **7.3.2 RQ2: What is the EP capacity of the youth?**

The study's second research question aimed to investigate the EP capacity of the youth. Specifically, the research focused on identifying the personal characteristics and traits that are associated with entrepreneurial success and which can be developed in the youth to improve their entrepreneurial intention. To achieve this objective, the study provided a comprehensive definition of the construct of EP, which highlighted the key traits that are essential for successful entrepreneurship. The identified traits included self-motivation, RTP, self-confidence, persistence, creativity and innovation, problem solving, and independence. By developing these traits, the youth can improve their entrepreneurial capacity and enhance their chances of success in entrepreneurial ventures.

This study found that EP is not only about personal traits, but also about the environment and resources that surround an individual. Students may have a natural inclination towards entrepreneurship, but the right environment can provide them with the resources and opportunities to develop and improve their ES.

The study provided an exhaustive list of ES identified from existing literature that sought to investigate the same relationships, although applied in a postgraduate context. The researcher was able to apply the assessment of these skills among young people who may have developed

them in their younger years. The study was able to identify from the lists of items the critical ES that contribute to the development of EP, which contributes to increased entrepreneurial intention. The coefficient of ASN was the only construct that indicated a statistically significant relationship between EP and entrepreneurial intention. This relationship is important because it provides insight into the factors that influence entrepreneurial intention. It suggests that individuals who have positive ATE and perceive that others in their social network support their entrepreneurial aspirations are more likely to intend to start a new venture. EE programmes can be designed to target ASN, which may help to increase entrepreneurial intention and ultimately lead to higher rates of new venture creation and highlights the importance of understanding the complex relationship between personality traits and entrepreneurial intention.

The coefficient of ASN is a measure of the relationship between EP and entrepreneurial intention, which indicates that EP and entrepreneurial intention are moderately correlated. One possible explanation for this moderate correlation is that individuals with certain personality traits may be more inclined to develop positive ATE, which in turn can influence their intentions to start a business. For example, individuals who are high in extraversion, openness to experience, and RTP may be more likely to have positive ATE and perceive entrepreneurship as an attractive career choice.

As per the statistical analysis, the construct of ASN emerged as the predominant determinant of entrepreneurial intention. The study therefore recommends that future interventions should focus on changing ASN to promote entrepreneurial intention. To achieve this, it is suggested that individuals with a strong inclination towards EP be targeted and provided with training and support to enhance their ES and entrepreneurial knowledge. These findings have important implications for the development of effective EI programmes, which should prioritise these factors to foster a conducive entrepreneurial environment. While this study provides valuable insights into the factors that impact entrepreneurial intention, additional research is necessary to validate these findings and to extend understanding of the subject. Future research should include more in-depth investigations into the nuanced relationships between specific personality traits and components of entrepreneurial intention. Additionally, exploring the effectiveness of tailored interventions targeted at changing the attitudes and subjective norms (ASN) and its impact on entrepreneurial intention could be a fruitful avenue.

The results of the statistical analysis revealed that the ASN construct plays a critical role in determining entrepreneurial intention. These findings have significant implications for the development of EIs, which must focus on changing ASN to effectively promote entrepreneurial intention. Specifically, targeting individuals with a strong propensity for EP and providing them with training and support to enhance their ES and entrepreneurial knowledge is an effective strategy for improving EI.

Overall, these results emphasise the importance of understanding the factors that drive entrepreneurial intention and developing targeted interventions that can effectively promote entrepreneurship. The findings suggest that a comprehensive approach is necessary, which involves addressing the psychological and social barriers that inhibit entrepreneurial activity and providing individuals with the necessary resources and support to succeed as entrepreneurs. By doing so, policymakers and practitioners can promote a more vibrant and dynamic entrepreneurial ecosystem, which can drive economic growth and development.

### **7.3.3 RQ3: What is the ES capacity of the youth?**

The study was able to answer this question and achieve the related research objective by precisely defining the construct of ES that requires development to enhance entrepreneurial capacity and increase entrepreneurial intention.

According to existing literature, the ES capacity of the youth is subject to several factors, such as education level, availability of resources and mentorship, and prior experience in running a business. Despite these variations, scholars have pointed out that many young individuals have the potential to develop robust ES.

Proficiency in certain skills may be attributed to inherent abilities, but many of these skills can be enhanced through education, training, and hands-on experience. The specific types of skills that can be developed and improved may vary among individuals and depend on various factors such as their personal attributes, educational background, and professional aspirations. It is essential to recognise that the acquisition and refinement of skills are ongoing processes that require continuous learning and self-reflection. Educators and trainers should therefore strive to offer diverse learning opportunities and tailored guidance to cater to the unique needs and goals of different students.

The research findings indicate that a robust understanding of CBM is crucial in explaining the relationship between ES and entrepreneurial intention. According to the outcomes, individuals with a solid grasp of business management, including FMS and SIS, are more likely to possess a strong intention to launch their own venture. These results underscore the significance of providing young individuals with a well-rounded education in entrepreneurship, which encompasses various business management skills, in addition to the development of personal and social skills, to foster entrepreneurship among the youth.

Moreover, the study's implications could be leveraged to develop training programmes and educational resources aimed at cultivating ES. The results of this research could potentially offer valuable insights to policymakers and educators in designing effective EIs to promote entrepreneurship. It is therefore crucial to consider these research findings and translate them into practical applications to enhance the development of ES among the youth.

Overall, the study provides valuable insights into the relationship between ES and entrepreneurial intention, and highlights the importance of CBM, FMS, and SIS in promoting entrepreneurship. The findings can be used to inform the development of interventions and programmes that aim to promote entrepreneurial intention and support individuals who wish to start their own businesses. The outcomes show that developing CBM may be particularly important for those who are considering starting their own business. Furthermore, it may be beneficial for individuals who are interested in entrepreneurship to focus on developing their CBM, in addition to their FMS and SIS.

#### **7.3.4 RQ4: What is the entrepreneurial intention capacity of the youth?**

The study showed that promoting entrepreneurial intention among the youth can have positive implications for economic development and job creation. It can therefore be concluded that to increase the likelihood of individuals becoming entrepreneurs, it is important to provide them with the necessary skills and to create positive ATE. Additionally, providing them with the right resources and a supportive environment will also increase the likelihood of them becoming entrepreneurs.

The output of this study and other research (Krueger & Carsrud, 1993; Shane & Venkataraman, 2000; Liñán & Chen, 2009; Sarasvathy, 2001) has shown that youths who have a strong entrepreneurial intention capacity are more likely to start their own businesses and be successful in their ventures. This study operated on the premise that individuals' prior

experiences and perceptions of entrepreneurship play a significant role in shaping their capacity for entrepreneurial intention. It posits that survey participants who have undergone an EI programme developed the necessary skills and attitudes to cultivate a sense of confidence in their ability to engage in entrepreneurial activities.

Based on the findings, it is apparent that the TPB is an effective framework for analysing entrepreneurial intentions. This conclusion is consistent with the research conducted by Krueger and Carsrud (1993) and Krueger et al. (2000), which used the TPB to explore the factors that influence individuals' intentions to become entrepreneurs.

This study has provided additional support to the TPB by demonstrating that ATE, SN, and PBC are essential predictors of entrepreneurial intention. Furthermore, the findings indicate that SUS, such as financial management, marketing, and business planning skills, are positively associated with entrepreneurial intention. Incorporating these skills into EE programmes may therefore enhance the effectiveness of such programmes.

The study also suggests that the TPB can be applied to other fields beyond entrepreneurship. For instance, the TPB has been used to analyse the intentions of individuals to adopt sustainable behaviours, such as recycling or reducing energy consumption. Similarly, the TPB can be utilised to analyse the intentions of individuals to engage in other types of learning, such as language learning or online courses.

In conclusion, this study provided evidence that the TPB is a useful framework for understanding the factors that influence individuals' intentions to become entrepreneurs. Moreover, the findings suggest that the TPB can be applied to other fields beyond entrepreneurship, including education and sustainability.

The fourth research question sought to investigate the entrepreneurial intention capacity of the youth, which is a critical outcome of the study. The study found that EI programmes, such as JASA and YLED, can effectively build capabilities that positively impact the entrepreneurial intention capacity of the youth.

The study's findings have significant implications for policymakers, educators, and other stakeholders involved in promoting entrepreneurship among young people. By defining entrepreneurial intention capacity and exploring its related drivers, the study provides valuable insights into the importance of EI and EE programmes in developing the youth's entrepreneurial potential.

### **7.3.5 RQ5: How does EI influence the youth?**

The fifth research question in this study aimed to investigate how EI influences the youth. The results revealed that the majority of young people who participated in the programmes experienced their positive impact and, as a result, had high intentions of pursuing entrepreneurship. These findings suggest that promoting EE, not just at universities but also in schools (especially high school), can foster entrepreneurial activity among the youth and have significant implications for economic development and job creation.

EI has been widely recognised as a crucial element in developing young people's ES and ATE. Research has demonstrated that programmes such as training and mentoring, incubators, and accelerators, and financial and non-financial support, can all play a pivotal role in promoting entrepreneurship among the youth. Moreover, studies have found that EE programmes can increase the probability of young people starting a business and lead to a higher survival rate of these ventures.

EI can also have a profound impact on personal development by fostering self-esteem, self-confidence, and reducing poverty and unemployment. Encouraging young people to participate in such programmes and promoting them as a vehicle for self-empowerment can contribute to increased entrepreneurial activity and play a vital role in achieving sustainable economic growth and job creation.

Overall, this study's findings underscore the significance of EI as a means of promoting entrepreneurship among the youth. The study suggests that investing in EE at an early age can drive entrepreneurial activity and generate positive implications for economic growth and job creation. Therefore, policymakers, educators, and practitioners must recognise the importance of these interventions and prioritise their implementation to create a favourable environment for youth entrepreneurship.

## **7.4 CONTRIBUTIONS OF THE STUDY**

The study's potential contributions are shaped by two critical components. The first component is based on real-world observations by Ryne (2002), who notes that EE in developing countries primarily focuses on HEIs, with little attention paid to high school students. This presents a missed opportunity for fostering an entrepreneurial mindset among young people. The primary

challenge is therefore to determine how and what EE can be integrated into high school curricula and to identify sources of learning.

The second component is centred on theory, also by Ryne (2002). The focus of this component is to understand the impact of EI among marginalised groups in developing countries. NPOs often work with schools to encourage an entrepreneurial culture among high school students, but they lack empirical evidence of their impact. Previous studies by Acevedo et al. (2011), Baum and Locke (2004), and Kolvereid (1996) provided insights into the impact of EE on high school students. However, they have highlighted the need for further research to determine the long-term effects of EE on students.

This study therefore aimed to address this need and build upon the existing body of knowledge. It sought to provide empirical evidence of the impact of EI in developing countries, particularly among high school students, with a focus on marginalised groups. By doing so, this research will help NPOs and other stakeholders to understand the effectiveness of their interventions and guide future efforts to foster an entrepreneurial culture among young people in developing countries.

The study aimed to contribute to the understanding of the impact of EI among marginalised groups in a developing country. To achieve this, the TPB was chosen as the theoretical framework due to its emphasis on assessing impact based on action and its previous application in investigating entrepreneurial intention. Despite its limitations, the theory was deemed appropriate for this study as it has not been widely used in the context of the African continent and the Global South.

The study's primary theoretical contribution was to provide a longitudinal assessment of the impact of EIs delivered in high school on entrepreneurial intention over an 11-year period. This perspective was unique in the context and had not been previously undertaken. The study's value to entrepreneurship scholarship was further enhanced by adding a new perspective that demonstrated the dynamic and curvilinear nature of different dimensions of EI and entrepreneurial intention, which built on previous research by Corley and Gloria (2011).

The study's findings have implications for both entrepreneurship scholarship and practitioners. Investigating and studying the impact of EE on young people while in high school are of great value to entrepreneurship scholarship, as it provides insights into how interventions can be

designed to maximise their impact. For practitioners, understanding the impact of their societal development efforts is critical in assessing their effectiveness and improving their outcomes.

Overall, the study's contribution was not limited to providing a list of elements and variables but also showed the relationships among these variables. By doing so, the study enhanced understanding of the impact of EI on marginalised groups in developing countries by providing insights that can inform policy and practice.

Having established the theoretical framework and context of the study, the next section provides a comprehensive account of the various theoretical, empirical, and practical contributions of the study. This section sheds light on the nuanced relationships among different variables and dimensions of EI and entrepreneurial intention, which provide valuable insights for both scholars and practitioners in the field.

#### **7.4.1 Theoretical contribution**

##### ***7.4.1.1 Conceptual framework***

This study offers a significant theoretical contribution to the literature on entrepreneurship by investigating the relationship between EP, ES, and entrepreneurial intention. Through the analysis of the study outcomes, the researcher developed a novel conceptual model, which was presented in Figure 6.6. The model highlights the importance of the combination of EP and ES to increase entrepreneurial intention. Specifically, the model suggests that certain skills constructs play a crucial role in the relationship between EP and entrepreneurial intention.

The proposed model is unique in that previous research on EI and entrepreneurial intention did not pay sufficient attention to the role of the combination of EP and ES as a key variable. By introducing this variable, this investigation provides a more comprehensive understanding of the impact of EE on entrepreneurial intention formation. As such, the study extends the existing literature on entrepreneurship and offers valuable insights for practitioners and policymakers alike.

The findings of the study emphasise the importance of considering both personality traits and skills in EE programmes. The proposed model provides a useful framework for designing and implementing such programmes. By emphasising the development of specific skills, educators can enhance the effectiveness of EI programmes and increase the likelihood of successful outcomes. Overall, the study highlights the importance of taking a holistic approach to EE,

which recognises the interplay between personality traits and skills in the formation of entrepreneurial intention.

#### **7.4.1.2 Hypotheses**

The study developed hypotheses based on existing research considerations and tested them quantitatively. The study found that specific hypotheses focusing on ES and EP were not developed or observable until the analysis and results phase. The study suggests that future research could develop new hypotheses in this area to further contribute to the development of theory on EE, particularly in understanding entrepreneurial intention with EP and ES.

#### **7.4.1.3 Empirical contribution**

The study contributes to knowledge about the application of the TPB to EI in the context of an emerging market, which is relatively unexplored. The study focused on a longitudinal assessment of the impact of EI programmes; in contrast to other studies that only studied the real-time impact of EE on students through the assessment of pre-intervention, end of the intervention, and post-intervention. The approach offers a more comprehensive understanding of the long-term impact of EI on students.

#### **7.4.2 Implications for stakeholders**

The study has practical implications for stakeholders who are broadly involved in EE and entrepreneurship.

Policy developers and NPOs can benefit from the study's findings, particularly in understanding the effectiveness of targeted interventions and programmes aimed at increasing the number of young entrepreneurs from disadvantaged backgrounds.

The study suggests that EI can play a key role in promoting entrepreneurship as a viable career option for young people from disadvantaged backgrounds. The study also highlights the importance of NPOs like YLED and JASA in promoting entrepreneurship among the youth in South Africa.

EE practitioners can benefit from the study's findings, particularly in designing specific skills constructs that are critical to the bidirectional relationship between EP, ES, and entrepreneurial intention.

Practitioners in the field of EE should focus on developing specific skills in high school students, as they are crucial to the relationship between EP, ES, and entrepreneurial intention. Additionally, practitioners should consider creating EE and EI programmes specifically designed for women to increase the rate of women's entrepreneurship in South Africa and globally.

The study's findings provide valuable insights into the effectiveness of EI and entrepreneurial programmes in promoting entrepreneurship as a viable career option for young people from disadvantaged backgrounds. The study suggests that targeted interventions and programmes can be an effective way to increase the number of young entrepreneurs from disadvantaged backgrounds. Additionally, the study highlights the importance of specific skills constructs in the relationship between EP, ES, and entrepreneurial intention. The study's implications for policy developers, NPOs, and EE practitioners can contribute to the development of policies and programmes that support the development of ES and entrepreneurial intention among young people from disadvantaged backgrounds.

## **7.5 LIMITATIONS OF THE STUDY**

The study provides valuable insights into the effectiveness of EIs in influencing the entrepreneurial intention of disadvantaged youths. However, several limitations must be acknowledged.

Firstly, the study's small sample size and lack of a control group may limit the generalisability of the findings to other populations. Secondly, the absence of long-term follow-up using a qualitative approach may limit the understanding of the sustainability of the effects of the EIs.

Furthermore, while the study's use of the TPB framework offers a valuable perspective on the cognitive factors that influence entrepreneurial intention, it is important to note that the TPB has limitations. For instance, the framework does not consider personality traits, past experiences, and situational factors that may also shape entrepreneurial intention. A multi-theoretical approach is therefore recommended when investigating the effectiveness of EIs, especially when exploring the influence of various factors on the intentions of different populations.

Overall, this study highlights the need for further research to replicate and extend these findings, to explore the effectiveness of different EIs for diverse populations, and to consider

a range of theoretical frameworks to develop a comprehensive understanding of entrepreneurial intention. Acknowledging and addressing these limitations can lead to more robust research and will help to improve the effectiveness of EIs in promoting entrepreneurship among disadvantaged youths.

## **7.6 RECOMMENDATIONS FOR FUTURE RESEARCH**

### **7.6.1 Theory**

The academic implications of the study's findings include the need for more research on the effectiveness of different types of EI and the factors that contribute to their success. Additionally, the findings suggest that EE and training programmes can play an important role in promoting entrepreneurship and economic development.

Further research of this nature may inform the development of more targeted and effective EIs for young people from disadvantaged backgrounds. It may also shed light on the importance of addressing both EP and ES development, in addition to entrepreneurial intentions, in order to increase the likelihood of entrepreneurship.

The findings and research considerations have implications for policymakers, educators, and practitioners working in the field of entrepreneurship and economic development.

The study's findings have several academic implications, including the need for more research on the effectiveness of different types of EIs and the factors that contribute to their success. Further research can inform the development of more targeted and effective EIs for young people from disadvantaged backgrounds.

The findings also suggest that EE and entrepreneurial training programmes can play an important role in promoting entrepreneurship and economic development. Researchers should therefore investigate how different types of education and training programmes can reduce some of the barriers that disadvantaged youths may face when considering entrepreneurship as a career option.

Moreover, the study indicated the importance of addressing both EP and ES development in addition to entrepreneurial intention to increase the likelihood of entrepreneurship. Future research can therefore focus on exploring how EI can address these different factors to improve entrepreneurial outcomes.

The academic implications of this study highlight the need for more research to better understand the impact of EI on disadvantaged youths.

### **7.6.2 Practice**

The findings of this study also have several practical implications for policymakers, educators, and practitioners working in the field of entrepreneurship and economic development. These practical implications include the following:

- **Providing support and resources:** The study highlighted the importance of providing support and resources for individuals who are interested in starting their own businesses. Governments, universities, and private organisations should offer training and mentoring programmes, provide access to funding and networking opportunities, and create a supportive policy environment.
- **Increasing the availability of EE programmes:** To increase the likelihood of individuals starting their own business, there is a need to increase the availability of EE programmes for disadvantaged youths. These programmes should provide training and resources that teach young people about starting and running a business, as well as providing mentorship and networking opportunities.
- **Expanding the use of technology:** The study suggests that expanding the use of technology in EE programmes for disadvantaged youths can be helpful. Using online platforms, social media, and mobile apps to deliver content and connect young entrepreneurs with mentors and resources can be a cost-effective and efficient way to provide support.
- **Partnering with organisations:** Partnering with organisations that work with disadvantaged youths to provide EE and entrepreneurial training is another practical implication of this study. Working with schools, community centres, and NPOs to provide young people with the resources and support they need to start and grow their own businesses can be a valuable way to promote entrepreneurship.
- **Providing financial support:** Offering grants and loans to help young entrepreneurs start and grow their businesses is another practical implication of this study. Such financial support can help overcome some of the barriers that disadvantaged youths face when starting a business.

### **7.6.3 Methodology**

It is important to consider that the skills and intentions of beneficiaries may change over time, and future studies should take this into account. Increasing the sample size of the cohorts and using a qualitative method, such as interviews or focus groups, can provide a deeper understanding of the challenges that prevent beneficiaries from transitioning from intention to action. Such an approach can help to identify specific areas that need to be addressed in order to improve the effectiveness of the programme or intervention.

The study focused on EI beneficiaries. Future studies should consider including a control group to compare the results of the EI beneficiaries with a group that did not participate in such EIs. Such an approach would help to understand the differences in their intention and action and determine if the EI had a significant impact on their behaviour. Additionally, including a control group would also help to control for other factors that may influence the outcome, such as prior experience or socio-economic status. The findings suggest that such efforts would increase the strength of the study and its ability to draw accurate conclusions.

Regarding survey design, the study used existing instruments and found that these can be adapted for impact. Future studies can leverage these findings and adapt the survey for optimal results and outcomes.

The findings suggest that such efforts could include refining or adding new questions, adjusting the format or layout of the survey, or pilot testing the survey to ensure that it is effective in capturing the intended information. It is also important to consider the context of the study, and to think about the population being surveyed and their characteristics, in order to adapt the survey accordingly.

### **7.6.4 Entrepreneurial Interventions (EIs)**

This study provides valuable insight into the design of effective EI programmes for youths from disadvantaged communities. It highlights the key components of successful interventions, the specific needs of disadvantaged youths, and the impact of interventions on youth entrepreneurial intentions. This information can be used to develop guidelines for the design of effective interventions that address the specific needs of these groups.

To optimise the design of future EI programmes, programme designers should prioritise the development of ASN, as well as CBM, SIS, and FMS. Furthermore, the study emphasises the

importance of tailoring interventions to meet the needs of disadvantaged youths and addressing the barriers they face in accessing entrepreneurial opportunities.

The study also revealed that successful EIs lead to increased entrepreneurial intentions, especially when they lead to the development of EP and ES. These findings can be used to design more effective EIs that increase the likelihood of success for youths who participate in these programmes.

Overall, the research contributes significantly to the design of EI programmes by providing insight into the key components of successful EIs, tailoring programmes to meet the needs of disadvantaged youths, understanding the impact of EIs on youth entrepreneurial intentions, and developing guidelines for the design of effective EIs.

## **7.7 CONTRIBUTION TO ENTREPRENEURSHIP IN DEVELOPING COUNTRIES**

Studying the influence of EI and entrepreneurial intentions in developing countries can provide valuable insights into the challenges and opportunities facing entrepreneurs in these regions. The outcomes of this study can help inform policies and programmes aimed at promoting entrepreneurship and economic development in these countries.

One of the key contributions of this research is the understanding of the unique contextual factors that shape entrepreneurial intentions and behaviours in developing countries. For example, research has shown that in many developing countries, cultural and societal norms may discourage entrepreneurship and risk-taking, while lack of access to resources and networks may limit entrepreneurs' ability to start and grow their own businesses. By identifying these factors, policymakers and practitioners can develop targeted interventions that address the specific needs of entrepreneurs in these regions.

With particular emphasis on the context of developing countries, this research provides valuable insights into the challenges and opportunities faced by entrepreneurs in these regions. The study highlights the importance of providing access to resources and support networks, as well as addressing cultural and societal norms that may discourage entrepreneurship. By incorporating these insights into policies and programmes, policymakers and practitioners can create an enabling environment for entrepreneurship and economic development in developing countries."

Additionally, research on EIs in developing countries can provide insight into the effectiveness of different strategies for promoting entrepreneurship. For example, studies have shown that providing training and mentoring programmes for potential entrepreneurs can increase their likelihood of starting a business, while access to financing can be critical for growing and scaling existing businesses. By evaluating the impact of these interventions, researchers can identify which strategies are most effective in different contexts and can help inform the design of future interventions.

Another important contribution of this research is the understanding of how different types of EIs can impact different groups of entrepreneurs. For example, research has shown that women and youths in developing countries may face unique challenges and barriers to entrepreneurship and may therefore require tailored interventions to support their entrepreneurial efforts. By considering the specific needs and challenges of different groups of entrepreneurs, researchers can help to ensure that interventions are inclusive and effective for all.

This study provides insights and recommendations for the design of effective EI programmes for youths from disadvantaged communities in South Africa. The study identified the key components of successful EIs, namely ASN, CBM, SIS, and FMS. The study also highlighted the specific needs and challenges of youths from disadvantaged communities and the impact of EI programmes on their entrepreneurial intentions by emphasising the importance of developing EP and ES. The study recommends developing guidelines for the design of effective EI programmes that can address the specific needs of youths from disadvantaged communities.

Overall, research on the influence of EI and entrepreneurial intentions in developing countries can help policymakers and practitioners develop effective strategies for promoting entrepreneurship and economic development in these regions.

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## **APPENDICES**

### **Appendix A: Ethical statement**

The present study, which investigates the impact of entrepreneurial intervention on entrepreneurial intentions among youth from disadvantaged communities, has received ethical approval from Durham University. The research team has strictly adhered to ethical guidelines throughout the study's design, data collection, analysis, and reporting processes. This includes ensuring informed consent from all participants, maintaining confidentiality and anonymity, and protecting the rights and welfare of the individuals involved. The ethical approval from Durham University serves as a testament to our commitment to conducting rigorous and ethically sound research in line with established academic standards and principles.

## Appendix B: Entrepreneurial intervention questionnaire

### ENTREPRENEURIAL INTERVENTION QUESTIONNAIRE

Dear Research Participant

This structured questionnaire is intended as a tool to obtain information about the impact of entrepreneurial interventions on the entrepreneurial willingness of young South Africans.

Your contribution will help to better understand the contribution of entrepreneurial interventions to the entrepreneurial intension of youth in South Africa. Your research is of considerable value. Please note that your participation is entirely voluntary, and your identity remains anonymous. You can withdraw from this study at any time. Your participation in the research will not harm your integrity in any way. If you do not want to participate in the research, please do not fill in or return the questionnaire. If you decide to participate, the questionnaire will take approximately thirty (30) minutes to complete:

- Please answer all questions,
- Give your honest opinion,
- Your first reaction is the most effective; do not consider any question for too long,
- Return the questionnaire to the person who received it as soon as possible,
- Upon completion of the research, upon request, we will provide feedback.

Please answer the questions in the space provided. Try to complete the questions when you are least likely to be interrupted and avoid spending too much time on a question. Except for your time, completing the questionnaire will not incur any related costs. If you have any questions about this research project or would like more information, please contact me on **083 953 6524** during office hours or email [mavundlas@gmail.com](mailto:mavundlas@gmail.com).

The researcher appreciates the time taken by the respondents in completing this questionnaire as well as their contribution to the successful completion of the study. A copy of my completed research report will be made available to you upon request.

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Mr. Steven Zwane

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Signature

**SECTION A: DEMOGRAPHIC DATA**

**A1. Profile**

A1.1 Select appropriate age group

18-21	21-35

A1.2 Gender

Male	Female

A1.3 Education

Undergrad	Post-grad	Other

A1.4 Employment Status

Employed	Un-employed	Other

A1.5 Location: write your province

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**SECTION B: ENTREPRENEURIAL PERSONALITY**

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

Factors	Entrepreneurial personality indicator	Response Scale				
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Emotional Stability (ES)</b>	often feel anxious and worried about my learning state	1	2	3	4	5
	would like to try even if the probability of success is very low	1	2	3	4	5
	No matter what I do, I am always confident in myself	1	2	3	4	5
	I can control my emotions well, without the influence of mood swings	1	2	3	4	5
	I always show my leadership skills in team activities.	1	2	3	4	5
<b>Conscientiousness (C)</b>	I always do well in combining individual goals with organizational goals	1	2	3	4	5
	make careful arrangement of everything I do	1	2	3	4	5
	have the ability to do my job on the ground	1	2	3	4	5
<b>Agreeableness (A)</b>	If one doesn't complete the given task as my expectation, I won't blame him.	1	2	3	4	5
	When I get along with others, I am flexible and will not easily offend others	1	2	3	4	5
	I think the family bond is the most important emotion in all kinds of relationships	1	2	3	4	5
<b>Extraversion(E)</b>	When I get along with others, I always actively communicate with them	1	2	3	4	5
	In group activities, I always do what I want to do	1	2	3	4	5
<b>Openness(O)</b>	always think about things with running wild mind	1	2	3	4	5
	I am always keen on using the latest electronic products	1	2	3	4	5
	often spend excess budget	1	2	3	4	5
<b>Interpersonal Relationship (IR)</b>	When I encounter difficulties and setbacks in life, I will also be positive and optimistic to face	1	2	3	4	5
	I feel tired when I handle things which need much to be considered	1	2	3	4	5

	I am flexible in dealing with conflicts in Interpersonal Relationship	1	2	3	4	5
	always try to maintain harmony in communication	1	2	3	4	5
	When I encounter setbacks and difficulties, I always comfort myself with "winner" attitude	1	2	3	4	5
	I will do things in order to gain appreciation or favor from others	1	2	3	4	5
	When my mood is swing, I may do something irrational	1	2	3	4	5
<b>Entrepreneurial Self-efficacy (ESE)</b>	can identify the potential value of an idea	1	2	3	4	5
	can effectively convince people who have different ideas with me	1	2	3	4	5
	it is a pleasure to cooperate with others	1	2	3	4	5
<b>Entrepreneurial Intention (EI)</b>	will create venture in the future	1	2	3	4	5
	if I could freely make occupational decision, I will create venture	1	2	3	4	5
	Considering the various restrictions such as funds shortage or less family support), I will still choose entrepreneurship first	1	2	3	4	5
	It is most likely that I will create venture in the next five years	1	2	3	4	5

SECTION C: ENTREPRENEURIAL SKILLS

Factors	Entrepreneurial skills indicator	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Start-up skills</b>	I plan the growth in current and future terms	1	2	3	4	5
	I develop novel ideas and products	1	2	3	4	5
	I take risks to make and implement the decisions	1	2	3	4	5
	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
<b>Business management skills</b>	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
	I plan and organise tasks to run the business daily	1	2	3	4	5
	I take decisions to run the business daily	1	2	3	4	5
<b>Marketing skills</b>	I conduct market research	1	2	3	4	5
	I monitor and benchmark businesses like the one I run	1	2	3	4	5
	I position the business in the suitable market	1	2	3	4	5
<b>Financial management skills</b>	I set suitable prices for products or services	1	2	3	4	5
	I manage cash transactions coming in and out of the business	1	2	3	4	5
	I determine the cost structure for activities performed the business	1	2	3	4	5
	I read and analyse the financial statements	1	2	3	4	5
<b>Human resource management skills</b>	I recruit and employ the right employees to work in the business activities assigned to them	1	2	3	4	5
	I evaluate the employees' level of skills to execute	1	2	3	4	5
	I design the job descriptions for the employees	1	2	3	4	5
	I conduct performance management with the employees	1	2	3	4	5

	I implement policies on remuneration of employees	1	2	3	4	5
<b>Technical skills</b>	I use the skills specific to the business' industry	1	2	3	4	5
	I develop either physical or service products	1	2	3	4	5
	I manage the production processes of the products	1	2	3	4	5
	I assess the quality of the produced products according to industry requirements standards	1	2	3	4	5
<b>Leadership skills</b>	I encourage and bring the best out in employees	1	2	3	4	5
	I share the business' vision and mission with the employees	1	2	3	4	5
	I encourage employees to excel	1	2	3	4	5
<b>Social and interpersonal skills</b>	I care about the emotional well-being of others	1	2	3	4	5
	I communicate purposefully with all stakeholders	1	2	3	4	5
	I listen attentively to others	1	2	3	4	5
	I build trustworthy relationships with stakeholders	1	2	3	4	5
	I engage well with different cultures	1	2	3	4	5

#### SECTION D: ENTREPRENEURIAL INTENTION

Entrepreneurial intension indicator	Strongly Disagree	Disagree	neither agree nor disagree	Agree	Strongly agree
I like to challenge the old ideas and applications and seek better ones.	1	2	3	4	5
I am looking for suitable methods and techniques to provide success.	1	2	3	4	5
I can evaluate the opportunities I encounter.	1	2	3	4	5
I can transform the sources I have into efficiency.	1	2	3	4	5
I have a characteristic open to the innovations coming up during my business and studies.	1	2	3	4	5

I do my job fondly and determinedly.	1	2	3	4	5
I am not afraid of acting as a leader in a business or during activities.	1	2	3	4	5
My motivation and tendency to different businesses are strong.	1	2	3	4	5
I can cement good relations with different people	1	2	3	4	5
I am not afraid of trying those I haven't tried until now.	1	2	3	4	5
I feel the energy in myself to do different businesses.	1	2	3	4	5
I talk to my friends about my different business projects.	1	2	3	4	5
I am a risk bearer.	1	2	3	4	5
I can make preparations for the future.	1	2	3	4	5
I like to work on the projects which give the opportunity of new experiences.	1	2	3	4	5
I generally trust myself to be able to carry out my plans.	1	2	3	4	5
I have problem with orientating myself to a new environment or applications.	1	2	3	4	5
I am not afraid of making a mistake in a subject upon which I am working.	1	2	3	4	5
Any job has a risk in it. I can bear any risk in my job.	1	2	3	4	5
I try to do better than my previous performance in my job.	1	2	3	4	5
I try to do my best when the business is very challenging.	1	2	3	4	5
When I have to leave the job compulsorily, I can create new options for myself.	1	2	3	4	5
I can create alternatives under difficult conditions.	1	2	3	4	5
My decisions are effective in my work.	1	2	3	4	5
I don't hesitate to participate in some projects which come from my friends.	1	2	3	4	5
I do not leave my life to external factors.	1	2	3	4	5
I think I can form my life thanks to my decisions.	1	2	3	4	5
I engage in projects and businesses which provide a new perspective.	1	2	3	4	5
I try new methods which have never been used by anyone else during my works.	1	2	3	4	5
I can eliminate any problem with sufficient effort.	1	2	3	4	5
I can set up my own business.	1	2	3	4	5
I can take effective decisions regarding business in the future.	1	2	3	4	5

Please check the schedule for any missed items after completion.

Thank you for taking your time in completing this survey

**Thank you for your participation**

## **ENTREPRENEURIAL INTERVENTION QUESTIONNAIRE**

Dear Research Participant

This structured questionnaire is intended as a tool to obtain information about the impact of entrepreneurial interventions on the entrepreneurial intention of young South Africans.

Your contribution will help to better understand the contribution of entrepreneurial interventions to the entrepreneurial intention of youth in South Africa. Your input is of considerable value. Please note that your participation is entirely voluntary, and your identity remains anonymous. You can withdraw from this study at any time. Your participation in the research will not harm your integrity in any way. If you do not want to participate in the research, please do not fill in or return the questionnaire. If you decide to participate, the questionnaire will take approximately thirty (30) minutes to complete:

- Please answer all questions,
- Give your honest opinion,
- Your first reaction is the most effective; do not consider any question for too long,
- Return the questionnaire to the person who received it as soon as possible,
- Upon completion of the research, upon request, we will provide feedback.

Please answer the questions in the space provided. Try to complete the questions when you are least likely to be interrupted and avoid spending too much time on a question. Except for your time, completing the questionnaire will not incur any related costs. If you have any questions about this research project or would like more information, please contact me on +27 83 953 6524 during office hours or email [steven.zwane@durham.ac.za](mailto:steven.zwane@durham.ac.za)

The researcher appreciates the time taken by the respondents in completing this questionnaire as well as their contribution to the successful completion of the study. A copy of my completed research report will be made available to you upon request.

---

Mr. Steven Zwane

---

Signature

**SECTION A: DEMOGRAPHIC DATA**

**A1. Profile**

A1.1 Select appropriate age group

18-21	21-35

A1.2 Gender

Male	Female

A1.3 Race

<b>Black</b>	<b>Coloured</b>	White

A1.4 Country of origin (birth)

A1.5 Entrepreneurial programme attended

<b>Name</b>	<b>Institution</b>	Year

A1.6 Education

Undergrad	Post-grad	Matric/Equivalent	Certificate	other

A1.7 Employment Status

Employed	Un-employed	Self-employed	Other

A1.8 Location: write your **city**

A1.9 Location: write your **province**

**SECTION B: INTELLECTUAL CAPITAL**

Intellectual Capital indicator	Yes	No
Perceives to have the required knowledge and skills to start a business	1	2
Perceives good opportunities to start a business in the area where you live	1	2
Personally, knows someone who started a firm in the past two years	1	2
<b>Self-Confidence:</b> Generally, when facing difficult tasks, I am certain that I will accomplish them.	1	2
<b>Internal locus of control:</b> My life is determined by my own actions, not by others or by chance	1	2
<b>Proactiveness:</b> If I see something I do not like, I change it	1	2
Have some prior experience in owning and managing a firm	1	2

**SECTION C: ENTREPRENEURIAL PERSONALITY**

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

Factors	Entrepreneurial personality and EI indicator	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Attitudes toward entrepreneurship (ATE)</b>	Being an entrepreneur implies more advantages than disadvantages to me	1	2	3	4	5
	A career as an entrepreneur is attractive to me	1	2	3	4	5
	If I had the opportunity and resources, I'd like to start a firm	1	2	3	4	5
	Being an entrepreneur would entail great satisfaction for me	1	2	3	4	5
	Among various options, I would rather be an entrepreneur	1	2	3	4	5
<b>Subjective norms (SN)</b>	I believe that people think, I should pursue a career as an entrepreneur	1	2	3	4	5
	My friends see entrepreneurship as a logical choice for me	1	2	3	4	5
	My parents are positively oriented toward a career as an entrepreneur	1	2	3	4	5
	To start a firm and keep it working would be easy for me	1	2	3	4	5
	I am prepared to start a viable firm	1	2	3	4	5

<b>Perceived behavioral control (PBC)</b>	can control the creation process of a new firm	1	2	3	4	5
	can control the creation process of a new firm I can control the creation process of a new firm	1	2	3	4	5
	know how to develop an entrepreneurial project	1	2	3	4	5
	if I tried to start a firm, I would have a high probability of succeeding					5
<b>Locus of Control (LoC)</b>	When I make plans I am almost certain I can make them work	1	2	3	4	5
	I have enough control over the direction of my life	1	2	3	4	5
	Whether or not I am successful in life depends mostly on my ability	1	2	3	4	5
<b>Risk-taking propensity (RTP)</b>	When I travel I tend to take new routes	1	2	3	4	5
	can take risks with my money, such as investing in stocks	1	2	3	4	5
	like to try new foods, new places, and totally new experiences	1	2	3	4	5
	have taken a risk in the last six months	1	2	3	4	5

#### SECTION D: ENTREPRENEURIAL SKILLS

Factors	Entrepreneurial skills indicator	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Start-up skills</b>	I plan the growth in current and future terms	1	2	3	4	5
	I develop novel ideas and products	1	2	3	4	5
	I take risks to make and implement the decisions	1	2	3	4	5
	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
<b>Business management skills</b>	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
	I plan and organise tasks to run the business daily	1	2	3	4	5
	I take decisions to run the business daily	1	2	3	4	5
<b>Marketing skills</b>	I conduct market research	1	2	3	4	5
	I monitor and benchmark businesses like the one I run	1	2	3	4	5

	I position the business in the suitable market	1	2	3	4	5
<b>Financial management skills</b>	I set suitable prices for products or services	1	2	3	4	5
	I manage cash transactions coming in and out of the business	1	2	3	4	5
	I determine the cost structure for activities performed the business	1	2	3	4	5
	I read and analyse the financial statements	1	2	3	4	5
<b>Human resource management skills</b>	I recruit and employ the right employees to work in the business activities assigned to them	1	2	3	4	5
	I evaluate the employees' level of skills to execute	1	2	3	4	5
	I design the job descriptions for the employees	1	2	3	4	5
	I conduct performance management with the employees	1	2	3	4	5
	I implement policies on remuneration of employees	1	2	3	4	5
<b>Technical skills</b>	I use the skills specific to the business' industry	1	2	3	4	5
	I develop either physical or service products	1	2	3	4	5
	I manage the production processes of the products	1	2	3	4	5
	I assess the quality of the produced products according to industry requirements standards	1	2	3	4	5
<b>Leadership skills</b>	I encourage and bring the best out in employees	1	2	3	4	5
	I share the business' vision and mission with the employees	1	2	3	4	5
	I encourage employees to excel	1	2	3	4	5
<b>Social and interpersonal skills</b>	I care about the emotional well-being of others	1	2	3	4	5
	I communicate purposefully with all stakeholders	1	2	3	4	5
	I listen attentively to others	1	2	3	4	5
	I build trustworthy relationships with stakeholders	1	2	3	4	5

	I engage well with different cultures	1	2	3	4	5
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**SECTION E: ENTREPRENEURIAL INTERVENTION INDICATOR**

Entrepreneurial intervention indicator	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have engaged in a deliberate, systematic search for an idea for a new business.	1	2	3	4	5
I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.	1	2	3	4	5
I have discussed ideas for a new business with my friends and family.	1	2	3	4	5
I have had discussions with existing suppliers or distributors.	1	2	3	4	5
I have had discussions with potential or existing customers	1	2	3	4	5
I have taken some classes or seminars on how to start a new business.	1	2	3	4	5
I (alone or with others) have tried to define products or services for the business	1	2	3	4	5
I have devoted significant time to this business idea.	1	2	3	4	5

Please check the schedule for any missed items after completion.

Thank you for taking your time in completing this survey

**Thank you for your participation**

**ENTREPRENEURIAL INTERVENTION QUESTIONNAIRE**

Dear Research Participant

This structured questionnaire is intended as a tool to obtain information about the impact of entrepreneurial interventions on the entrepreneurial intention of young South Africans.

Your contribution will help to better understand the contribution of entrepreneurial interventions to the entrepreneurial intention of youth in South Africa. Your input is of considerable value. Please note that your participation is entirely voluntary, and your identity remains anonymous. You can withdraw from this study at any time. Your participation in the research will not harm your integrity in any way. If you do not want to participate in the research, please do not fill in or return the questionnaire. If you decide to participate, the questionnaire will take approximately thirty (30) minutes to complete:

- Please answer all questions,
- Give your honest opinion,
- Your first reaction is the most effective; do not consider any question for too long,
- Return the questionnaire to the person who received it as soon as possible,
- Upon completion of the research, upon request, we will provide feedback.

Please answer the questions in the space provided. Try to complete the questions when you are least likely to be interrupted and avoid spending too much time on a question. Except for your time, completing the questionnaire will not incur any related costs. If you have any questions about this research project or would like more information, please contact me on **+27 83 953 6524** during office hours or email [steven.zwane@durham.ac.uk](mailto:steven.zwane@durham.ac.uk)

The researcher appreciates the time taken by the respondents in completing this questionnaire as well as their contribution to the successful completion of the study. A copy of my completed research report will be made available to you upon request.

\_\_\_\_\_  
Mr. Steven Zwane

\_\_\_\_\_  
Signature

**SECTION A: DEMOGRAPHIC DATA**

**A1. Profile**

A1.1 Select appropriate age group

18-21	22-35

A1.2 Gender

Male	Female

A1.3 Race

<b>Black</b>	<b>Coloured</b>	<b>White</b>	<b>Indian</b>	<b>Asian</b>	<b>Other</b>

A1.4 Country of origin (birth)

**A1.5 Entrepreneurial programme attended**

A1.5.1 Select appropriate Programme

<b>Junior Achievement South Africa (JASA)</b>	<b>Youth Leadership and Entrepreneurship Programme (YLED) / Life Skills and Mentorship Programme (LSM)</b>

A1.5.2 Select period (years) of attendance

2008 – 2009	2010 - 2011	2012 – 2013	2014 – 2015	2016 - 2017	2018 – 2019	2020 - 2021

A1.6 Education

Undergrad	Post-grad	Matric/Equivalent	Certificate	other

A1.7 Employment Status

Employed	Un-employed	Self-employed	Other

A1.8 Location: write your **city**

A1.9 Location: write your **province**

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

**SECTION B: PERCEPTION OF INTELLECTUAL CAPITAL**

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

Intellectual Capital indicator	Yes	No
I have the required knowledge and skills to start a business	1	2
There good opportunities to start a business in the area where I live	1	2
I, know someone who started a firm in the past two years	1	2
<b>Self-Confidence:</b> Generally, when facing difficult tasks, I am certain that I will accomplish them.	1	2
Internal locus of control: My life is determined by my own actions, not by others or by chance	1	2
<b>Proactiveness:</b> If I see something I do not like, I change it	1	2
I have some prior experience in owning and managing a business	1	2

**SECTION C: ENTREPRENEURIAL PERSONALITY**

Factors	Entrepreneurial personality and intention indicator *	Response scale				
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Attitudes toward entrepreneurship (ATE)</b>	Being an entrepreneur implies more advantages than disadvantages to me	1	2	3	4	5
	A career as an entrepreneur is attractive to me	1	2	3	4	5
	If I had the opportunity and resources, I'd like to start a firm	1	2	3	4	5
	Being an entrepreneur would entail great satisfaction for me	1	2	3	4	5
	Among various options, I would rather be an entrepreneur	1	2	3	4	5
<b>Subjective norms (SN)</b>	I believe that people think, I should pursue a career as an entrepreneur	1	2	3	4	5
	My friends see entrepreneurship as a logical choice for me	1	2	3	4	5
	My parents or family member(s) are entrepreneurs or are positively oriented towards a career as entrepreneurs	1	2	3	4	5
<b>Perceived behavioural control (PBC)</b>	To start a firm and keep it working would be easy for me	1	2	3	4	5
	I am prepared to start a viable firm	1	2	3	4	5
	I can control the creation process of a new firm	1	2	3	4	5
	I can control the creation process of a new firm I can control the creation process of a new firm	1	2	3	4	5

	I know how to develop an entrepreneurial project	1	2	3	4	5
	If I tried to start a firm, I would have a high probability of succeeding	1	2	3	4	5
<b>Locus of Control (LoC)</b>	When I make plans I am almost certain I can make them work	1	2	3	4	5
	I have enough control over the direction of my life	1	2	3	4	5
	Whether or not I am successful in life depends mostly on my ability	1	2	3	4	5
<b>Risk-taking propensity (RTP)</b>	When I travel I tend to take new routes	1	2	3	4	5
	I can take risks with my money, such as investing in stocks	1	2	3	4	5
	I like to try new foods, new places, and totally new experiences	1	2	3	4	5
	I have taken a risk in the last six months	1	2	3	4	5

\*During analysis the two variables will be separated for results purposes.

#### SECTION D: ENTREPRENEURIAL SKILLS

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

Factors	Entrepreneurial skills indicator *	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<b>Start-up skills</b>	I plan the growth in current and future terms	1	2	3	4	5
	I develop novel ideas and products	1	2	3	4	5
	I take risks to make and implement the decisions	1	2	3	4	5
	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
<b>Business management skills</b>	I identify opportunities to create an entrepreneurial venture	1	2	3	4	5
	I plan and organise tasks to run the business daily	1	2	3	4	5
	I take decisions to run the business daily	1	2	3	4	5
<b>Marketing skills</b>	I conduct market research	1	2	3	4	5
	I monitor and benchmark businesses like the one I run	1	2	3	4	5
	I position the business in the suitable market	1	2	3	4	5

4

<b>Financial management skills</b>	I set suitable prices for products or services	1	2	3	4	5
	I manage cash transactions coming in and out of the business	1	2	3	4	5
	I determine the cost structure for activities performed the business	1	2	3	4	5
	I read and analyse the financial statements	1	2	3	4	5
<b>Human resource management skills</b>	I recruit and employ the right employees to work in the business activities assigned to them	1	2	3	4	5
	I evaluate the employees' level of skills to execute	1	2	3	4	5
	I design the job descriptions for the employees	1	2	3	4	5
	I conduct performance management with the employees	1	2	3	4	5
	I implement policies on remuneration of employees	1	2	3	4	5
<b>Technical skills</b>	I use the skills specific to the business' industry	1	2	3	4	5
	I develop either physical or service products	1	2	3	4	5
	I manage the production processes of the products	1	2	3	4	5
	I assess the quality of the produced products according to industry requirements standards	1	2	3	4	5
<b>Leadership skills</b>	I encourage and bring the best out in employees	1	2	3	4	5
	I share the business' vision and mission with the employees	1	2	3	4	5
	I encourage employees to excel	1	2	3	4	5
<b>Social and interpersonal skills</b>	I care about the emotional well-being of others	1	2	3	4	5
	I communicate purposefully with all stakeholders	1	2	3	4	5
	I listen attentively to others	1	2	3	4	5
	I build trustworthy relationships with stakeholders	1	2	3	4	5
	I engage well with different cultures	1	2	3	4	5

**SECTION E: ENTREPRENEURIAL INTENTION INDICATOR**

Please do not spend too much time thinking about each item. You should read the item and respond immediately.

Entrepreneurial intention indicator	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have engaged in a deliberate, systematic search for an idea for a new business.	1	2	3	4	5
I have been thinking about a business idea or a number of business ideas that can potentially grow into a real business.	1	2	3	4	5
I have discussed ideas for a new business with my friends and family.	1	2	3	4	5
I have had discussions with existing suppliers or distributors.	1	2	3	4	5
I have had discussions with potential or existing customers	1	2	3	4	5
I have taken some classes or seminars on how to start a new business.	1	2	3	4	5
I (alone or with others) have tried to define products or services for the business	1	2	3	4	5
I have devoted significant time to this business idea.	1	2	3	4	5

Please check the schedule for any missed items after completion.

Thank you for taking your time in completing this survey. The information shared will help me to derive insights of the impact of the entrepreneurial interventions you experienced on your life and its influence on your career choices.

Should have any clarity seeking questions, please feel free to get in touch with the researcher during office hours on +27 83 953 6524 or email [steven.zwane@durham.ac.uk](mailto:steven.zwane@durham.ac.uk)

**Thank you for your participation**

## Appendix C: Junior Achievement South Africa permission letter



10 September 2021

To whom it may concern

I, Ms. Nelly Mofokeng, as delegated authority of Junior Achievement (JA) South Africa hereby give permission to the primary researcher Steven Totie Zwane (Z0156952) as part of the DBA at Durham University Business School (DUBS), Durham University the following:

1. To engage with the employees and alumni of the above-mentioned company through an online survey questionnaire and semi structure interviews. I have reviewed the intervention protocol, the survey questions and proposed interview questions and I hereby give my approval for doing the intervention research followed by the survey and associated interviews by the researcher.
2. To collect and publish information relating to the above-mentioned company that is publically not available.

This is in partial fulfilment of the requirements for Doctorate in Business Administration (DBA) with the proposed research project titled: Determining the influence of Entrepreneurial Interventions on Entrepreneurial Intentions of Youth in South Africa.

The information provided by the employees or any other means (such as company's archived documents or reports) of the above-mentioned company is purely for academic purposes and cannot be used for any other purpose.

Regards,

A handwritten signature in black ink, appearing to read 'Nelly Mofokeng'.

**NELLY MOFOKENG**  
**MANAGING DIRECTOR**

---

Inspiring and Motivating Young Minds

Rosebank Corner, 191 Jan Smuts Avenue, Parktown North, Johannesburg, 2193. Tel: +27 71 191 0167  
Junior Achievement South Africa Reg. No 1990/001908/08 (Association incorporated under Section 21)/ [www.jasa.org.za](http://www.jasa.org.za)

## Appendix D: Youth Leadership and Entrepreneurship Development permission letter



Mr Tebang Ntsasa  
79 The Broads St  
Mulbarton  
Johannesburg South  
2059  
26 August 2021

To Whom It May Concern:

I, Mr. Tebang Ntsasa, as delegated authority of Youth Leadership and Entrepreneurship Development (YLED) hereby give permission to the primary researcher Steven Totie Zwane (Z0156952) as part of the DBA at Durham University Business School (DUBS), Durham University the following:

1. To engage with the employees and alumni of the above-mentioned company through an online survey questionnaire and semi structure interviews. I have reviewed the intervention protocol, the survey questions and proposed interview questions and I hereby give my approval for doing the intervention research followed by the survey and associated interviews by the researcher.
2. To collect and publish information relating to the above-mentioned company that is publically not available.

This is in partial fulfilment of the requirements for Doctorate in Business Administration (DBA) with the proposed research project titled: Determining the influence of Entrepreneurial Interventions on Entrepreneurial Intentions of Youth in South Africa.

The information provided by the employees or any other means (such as company's archived documents or reports) of the above-mentioned company is purely for academic purposes and cannot be used for any other purpose.

Regards,

A handwritten signature in black ink, appearing to be 'Tebang Ntsasa', written over a faint background image of a lightbulb.

Tebang Ntsasa | NPO Secretary and Operations Manager

[WWW.YLED.CO.ZA](http://WWW.YLED.CO.ZA)

79 the Broads Street, Mulbarton, 2059  
General email: [info@yled.co.za](mailto:info@yled.co.za) Cell: +27 (0)78 589 6211  
NGO number: 134 - 341 | PBO Number; 930067336  
Members: S T Zwane, T I Serame, T E Zwane, T Ntsasa, F Moeletsane

## Appendix E: Data profile and demographic variables

### Data profile

Data cleaning	Counts
Number of columns	78
Number of rows (excluding the titles)	165
Number of rows deleted	2 (95% empty)
Number of missing values in the file	222
Number of columns affected by missing values	57
Number of duplicates	0
Data formats	
Number of columns with text only	10
Number of columns with text and numerical combined	0
Number of columns with date format	0
Statistical test performed	
Descriptive statistics	Yes
ANOVA	Yes
Chi-square	Yes
Logistics	No
Regression	Yes
Factor analysis	Yes
Other: Multiple regression analysis	

### Demographic variables

Questionnaire name	Variable name
<b>Respondent ID</b>	Respondent ID
<b>Select the appropriate age group</b>	Age
<b>Gender</b>	Gender
<b>Race</b>	Race
<b>Country of origin (birth)</b>	Country of origin
<b>Entrepreneurial programme attended: Name</b>	Programme name Life Skills & Mentorship programme = LSM Mini Enterprise Programme = MEP YLED programme = YLED
<b>Entrepreneurial programme attended: Institution</b>	Institution name
<b>Entrepreneurial programme attended: Year</b>	Programme year
<b>Clusters</b>	Clusters 1 = 2008 - 2011 - 29 (17%) 2 = 2012 - 2015 - 45 (29%) 3 = 2016 - 2019 - 87 (54%)
<b>Education</b>	Education
<b>Employment status</b>	Employment
<b>Location: Write your city</b>	City
<b>Province</b>	Province

