

FACTORS RELATING TO ENTREPRENEURIAL CAREER CHOICE OF SECONDARY SCHOOL STUDENTS

By

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Submitted in partial fulfilment of the requirements for the degree

PhD ENTREPRENEURSHIP

in the

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

at the

UNIVERSITY OF PRETORIA

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OCTOBER 2013

Declaration

I declare that the doctoral thesis, which I hereby submit for the degree PhD Entrepreneurship at the University of Pretoria, is my own work and has not been submitted by me for a degree at another university.

Alex Bignotti

October 2013

Acknowledgements

To begin with, I would like to express my sincere gratitude to my supervisor, Dr. Ingrid le Roux, for her continuous support and guidance. She fulfilled her supervisory role with outstanding competence and dedication, and in every way she greatly exceeded what was required of her. I would also like to thank Prof. Marius Pretorius for his advice, which he always offered generously.

My sincere thanks also go to Prof. Gideon Nieman and Prof. Anské Grobler for supporting my doctoral studies. I would also like to specially thank Ms. Jo-Anne Adams for her constant encouragement and assistance in making this achievement possible. I am grateful to all my other colleagues of the Department of Business Management of the University of Pretoria for their support.

I thank Mrs. Rina Owen for her assistance in the statistical aspects of this study. I am also grateful to all those who granted their collaboration in the data-collection phase: Ms. Linda McClure of JASA, Mr. Daan Potgieter of Hoërskool Waterkloof, Mr. Peter Ross of CBC Mount Edmund, Mr. Keith Fairweather of St Alban's College and Mrs. C Nel of The Glen High School. I also would like to express my gratitude to Mrs. Maria Rosa De Ponte for her language-editing services, which she rendered with outstanding commitment.

Last but not the least, I would like to thank my family – my parents and my brothers – and all my friends, many of whom I also consider family, for their invaluable support along this journey.

Executive summary

Young people face escalating unemployment rates and insufficient or unsatisfactory job opportunities. Despite this, most of them prefer a career in a formal organisation to a career in entrepreneurship. At the same time, youth entrepreneurship has been widely put forward as a possible solution to youth unemployment. To more effectively prompt young people to choose entrepreneurship as a career, it is critically important to understand the personal and environmental factors relating to entrepreneurial career choice: the *antecedents* of entrepreneurial career choice.

Most entrepreneurial-career-choice research has focused on powerful predictors of entrepreneurial career choice, such as entrepreneurial intentions, entrepreneurial self-efficacy and career anchors, at the expense of antecedents. To date, there is no consensus on which factors are related to entrepreneurial career choice at the personal and contextual levels. It also appears that there are a limited number of theories or models that exhaustively address the antecedents of entrepreneurial career choice.

A closer look at youth entrepreneurship internationally reveals that young people in advanced economies exhibit low levels of entrepreneurial intentions. In developing countries, young people have higher levels of entrepreneurial intentions, albeit out of necessity. It seems, therefore, that for the majority of young people worldwide, entrepreneurship is not a desirable career option. The core research question underlying this study is: *What are the factors relating to entrepreneurial career choice in young people?*

This study performs an empirical validation of a framework of antecedents of entrepreneurial career choice. It first lays the foundations for building a theory of antecedents of entrepreneurial career choice by constructing a conceptual framework of antecedents starting from the extant literature in this field. It then attempts to validate the framework empirically in a sample of South African secondary-school students, laying the foundation for building a theory of antecedents of entrepreneurial career choice. The data collection instrument is a questionnaire compiled mainly on the basis of validated

Executive summary

questions available in the literature. The sample is made up of Grade-10, -11 and -12 secondary school learners, aged sixteen, seventeen and eighteen, respectively, selected using a convenience sampling technique. Different statistical tests are employed to examine the relationship between each antecedent factor of the conceptual framework and entrepreneurial career choice.

The findings reveal that the majority of respondents expressed entrepreneurial-career-choice intentions. The results confirmed a relationship between entrepreneurial career choice and the following antecedents: *family support, community support, early childhood experiences, work experience, prior start-up experiences* and *education*. An intricate network of relationships was also found among the antecedents investigated, including some biographical variables. The findings suggest that the current Economic and Management Science (EMS) curriculum implemented in South African secondary schools is achieving its objective of raising students' entrepreneurial-career-choice intentions. At the same time, however, a number of extra-curricular activities and experiences seem to be related to students' entrepreneurial-career-choice intentions. This signifies that efforts to foster the choice of an entrepreneurial career among the youth should not be focused entirely on adjusting the school curriculum. Lastly, the number of inter-relationships observed among the antecedents of entrepreneurial career choice signifies that entrepreneurial career choice is a complex phenomenon and that building a theory of antecedents is an arduous undertaking.

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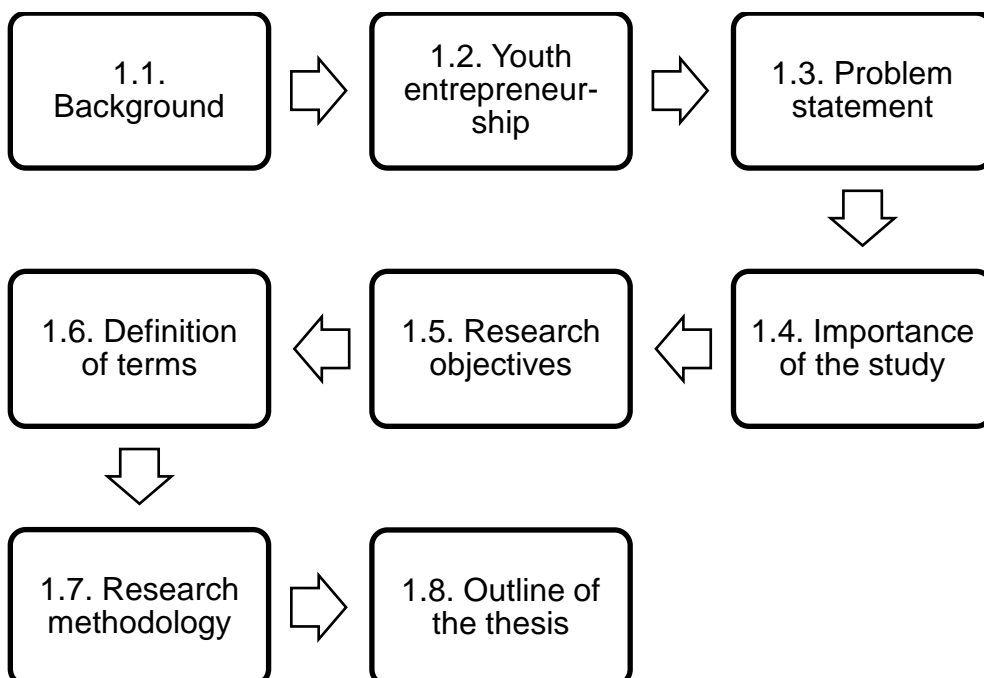
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CHAPTER 1: Introduction

CHAPTER 1 LAYOUT



1.1. Background

Young people worldwide face many challenges, one of the more serious being, finding employment. Since a successful transition from youth to adulthood is marked by economic independence gained through work, investigating the situation of youth employment is of vital importance. A vast majority of the unemployed worldwide are young people (World Bank, 2013: 170). The global youth-unemployment rate is currently above twelve percent, and it is predicted to affect more than seventy million young individuals in 2013. Moreover, youth-unemployment rates are consistently about three times higher than adult-unemployment rates, and have been on the rise in the last few decades (ILO, 2013: 7).

Youth unemployment is critical in many developing countries, and has devastating effects for the young individuals that are affected by it. Youth who are not employed live at the margin of society and may end up engaging in criminal activity. Being unemployed also increases the likelihood of being unemployed in the future. This may lead to a disruption of society's wellbeing. The longer the period of unemployment, the lower the wages that will be enjoyed by young people when they find employment, and this effect can last for decades (Bell & Blanchflower, 2011: 259; Matsumoto, Hengge & Islam, 2012: 1; O'Higgins, 2010: 2). Unemployment may also cause negative psychological, physiological and economic effects for unemployed youth (Bell & Blanchflower, 2011: 259; Wuermli & Lundberg, 2012: 206). The young people who have employment in developing countries are often employed in sub-standard forms of work in the informal sector, with few opportunities of economic progress (Mlatsheni & Leibbrandt, 2011: 119).

This bleak picture has further been aggravated by the recent financial crisis and the ensuing recession. Youth-unemployment rates have risen more steeply during the current recession and faster than adult-unemployment rates (Bell & Blanchflower, 2011: 245–246). It can also be argued that young people finding a job during a recession will have lower life-time earnings than if they had found employment during normal times. During recessions, young people are also more likely to end up in lower-level occupations (Scarpetta, Sonnet & Manfredi, 2010: 21). In fact, during economic recessions or stagnation times, young people are more inclined to lower their reservation wages and settle for less-than-ideal jobs. When they make these compromising decisions during

recessions, the youth may end up trapped in a precarious financial situation for an indefinite period of time (ILO, 2013: 1; Matsumoto *et al.*, 2012: 9).

1.2. Youth entrepreneurship

Entrepreneurship in general, and youth entrepreneurship in particular, has been proposed as a partial solution to the youth-unemployment epidemic. Entrepreneurship is widely seen as a catalyst of a country's economic growth, socio-cultural progress, employment creation and poverty reduction (Fatoki & Chindoga, 2012: 308; ILO & UNESCO, 2006: 5; Mlatsheni & Leibbrandt, 2011: 120; Schoof & Semlali, 2008: 1–2; Thurik, Carree, Van Stel & Audretsch, 2008: 673; World Economic Forum, 2009: 7). As the labour market is not able to absorb the number of young people who complete their education every year, self-employment has been put forward as a possible alternative to formal employment. Youth have been regarded as valuable champions of entrepreneurship, as they can be more creative and innovative and are able to understand the economic-growth potential that entrepreneurship has for their countries (Chigunta, Schnurr, James-Wilson & Torres, 2005: 13–14; Kourilsky, Walstad & Thomas, 2007: 5; Schoof & Semlali, 2008: 1; Viviers, Solomon & Venter, 2011: 59).

Youth entrepreneurship is not an easy career path for today's youth. In general, young people do not exhibit the same level of business skills, knowledge and experience as adults. They have fewer savings and reduced access to finance, business networks and sources of information (ILO, 2013: 68; Sieger, Fueglistaller & Zellweger, 2011: 31). In Sub-Saharan Africa, young people struggle to set up and run their own businesses successfully owing to their limited access to finance and poor infrastructure, especially considering that the availability and reliability of electricity is questionable (Matsumoto *et al.*, 2012: 17–18).

Young people worldwide display positive attitudes towards entrepreneurship as a career path (Davey, Plewa & Struwig, 2011: 343–344). An international survey conducted in 2011 reports that 68 percent of young people aim at some form of organisational employment after their studies, while only 11 percent want to be entrepreneurs. At the same time, however, 38 percent plan to be employed by an organisation five years after having completed their studies, and 34 percent plan to have their own business (Sieger *et al.*, 2011: 13–14). This indicates that youth worldwide are positive about following an

entrepreneurial career, but not immediately after their degree. It can be assumed that organisational employment gives them the opportunity to raise capital and develop the necessary skills before starting a business. In line with this, Xavier, Kelley, Kew, Herrington and Vorderwülbecke (2013: 28–29) also found that the individuals most involved in early-stage entrepreneurial activity¹ in 2012 were between the ages of 25-34, followed by the 44-45 year-old age group.

For Sub-Saharan Africa, where many young people are unemployed and struggle to gain economic and social independence (Chigunta *et al.*, 2005: 32), the role of youth entrepreneurship is crucial. Data reveal that Sub-Saharan Africa exhibits the highest rates of entrepreneurial intentions and of nascent and new entrepreneurs (Xavier *et al.*, 2013). This is even more true of Sub-Saharan African youth (Turton & Herrington, 2013). Entrepreneurial ventures in this region have, however, the lowest rates of business survival and of job-creation potential. A greater proportion of businesses in Sub-Saharan Africa are started out of necessity, as opposed to being started for the purpose of having identified a niche in the market. (Xavier *et al.*, 2013). These dynamics apply equally to youth (Turton & Herrington, 2013). In Sub-Saharan Africa, the rates of entrepreneurial intentions and business start-up are higher than in other regions of the world, but many businesses are started out of necessity owing to unemployment or poverty and thus have a lower survival or growth rate. Entrepreneurship in this developing region of the world, therefore, has a low impact on employment creation and economic growth.

South Africa represents an even more worrying case. Young people in this country exhibit lower entrepreneurial intentions and early-stage entrepreneurial activity than other Sub-Saharan African countries. This is in line with more advanced economies where young people prefer employment in a formal organisation to self-employment as a career option. Nevertheless, unlike more advanced economies, South Africa has youth-run businesses that display a low established-business-ownership rate, even substantially lower than for other Sub-Saharan countries, and a relatively high discontinuation-of-business rate (Turton & Herrington, 2013). These facts are very disconcerting if one considers that South

¹ Early-stage entrepreneurial activity consists of nascent and new entrepreneurs (Xavier, Kelley, Kew, Herrington & Vorderwülbecke, 2013: 26).

Africa's youth-unemployment rate in 2012 was 48 percent, one of the highest in the world (Turton & Herrington, 2013: 66), and it is very high when compared with the 12-percent youth-unemployment rate for Sub-Saharan Africa for the same year (ILO, 2013: 20).

Entrepreneurship seems to represent a promising solution to the wave of unemployment that has hit many young people worldwide. The tendency worldwide is for young people to prefer pursuing a career in a formal organisation than in entrepreneurship. Those that start a business do so out of necessity in most cases, and the job-creation potential of their ventures is dismal. There is a need to promote entrepreneurship as a career choice among young people, and not just as a forced alternative to unemployment.

It is imperative, therefore, to understand what factors propel young people into choosing entrepreneurship as a career. Knowledge of these factors can aid governments and policy makers in their efforts to promote entrepreneurship as a career option among the youth.

1.3. Problem statement

This study aims to determine the factors relating to entrepreneurial career choice of secondary-school students. In this study, the factors relating to entrepreneurial career choice are named the "antecedents" of entrepreneurial career choice.

Young people's attitudes towards entrepreneurship as a possible career are disconcerting. In most advanced economies, young people prefer a career in a formal organisation. In developing countries there is a higher proportion of young people engaged in entrepreneurial activities. The reason for this in most cases is that they are driven by necessity, and not by a deliberate career choice.

The research question underlying this research is: *What are the factors relating to entrepreneurial career choice in young people?* In other words: what are the factors at play in young people's choice in favour or against an entrepreneurial career?

The focus of this research on secondary-school students is based on the belief that adolescence is a crucial life stage when career interests tend to stabilise and positive attitudes about entrepreneurship as a career are formed (Bandura, Barbaranelli, Caprara

& Pastorelli, 2001: 202; Fatoki & Chindoga, 2012: 309; Godsey & Sebora, 2011: 85; Lent & Brown, 1996).

1.4. Importance of the study

There are currently a limited number of theories or frameworks depicting the antecedents of entrepreneurial career choice extensively, which could be employed to explain why so few young people choose entrepreneurship as a career. This research may thus prove important in four respects.

1. It conducts an in depth literature review of the plethora of theories and frameworks on entrepreneurial career choice and places them in clearly identified research streams.
2. It develops a comprehensive conceptual framework of antecedents of entrepreneurial career choice. By investigating these factors in a sample of secondary-school students, it paves the way for future research to build a theory of entrepreneurial career choice.
3. By investigating and describing the factors that are related to entrepreneurial career choice, this study contributes to the explanation of why some young people do not consider becoming entrepreneurs.
4. It provides education-and-training institutions, both governmental and non-governmental, and policy makers with valuable insight, by highlighting what needs to be developed in students to foster their choice of an entrepreneurial career.

1.5. Research objectives

This study has the objective of building a conceptual framework of antecedents of entrepreneurial career choice (see definition on p.7), starting from the literature on the factors related to entrepreneurial career choice. It also aims to validate the framework empirically in a national sample of secondary-school students, so as to prove that it represents a valid conceptual framework of antecedents and to direct future attempts to measure the framework. In so doing, this study lays the foundation for future research to build a theory of antecedents of entrepreneurial career choice that may contribute to the explanation of this phenomenon.

Starting from these considerations, the focus of this research is on entrepreneurial career choice of young people. Students in secondary school will represent the population of this study. Adolescence is a stage in life when career aspirations tend to crystallise, and secondary-school students suitably belong to this life stage. Moreover, in developing countries such as South Africa, the majority of students completing their secondary education do not enrol for tertiary education and thus become job seekers (Herrington, Kew & Kew, 2010: 71). This results in a relevant population in terms of young people making a decision about their future career. More specifically, the population of this study is made up of South African Grade-10, -11 and -12 learners, aged sixteen, seventeen and eighteen, respectively.

It is important to point out that, in building and validating a framework of entrepreneurial career choice, the aim of this research is not to prove a causal relationship between the factors of the framework and entrepreneurial career choice, but to verify that there is a relationship between the two sets of variables.

1.6. Definition of terms

1.6.1. Entrepreneurial career choice

Entrepreneurial career development involves many stages (Dyer, 1994; Lent, Brown & Hackett, 1994; Schein, 1993), of which one is the decision to embark on an entrepreneurial career path, more commonly denominated “entrepreneurial career choice”. In this study, entrepreneurial career choice is defined as the decision to run one’s own business as a career option. The decision to become an entrepreneur can be regarded as the choice of a specific career among other available career options (Douglas & Shepherd, 2002; Pihie, 2009). Typically, this career choice is set against a career in full-time employment in a formal organisation (Kolvereid, 1996a; Tkachev & Kolvereid, 1999; Zellweger, Sieger & Halter, 2011).

1.6.2. Antecedents of entrepreneurial career choice

In this study, the antecedents of entrepreneurial career choice are understood as the personal and environmental factors relating to entrepreneurial career choice.

1.7. Research methodology

The research methodology followed in this study consists of five stages.

Stage 1

An extensive literature review was conducted to identify existing theories or frameworks that explain the antecedents of entrepreneurial career choice at length. Three entrepreneurial-career-choice research streams were identified, and existing theories and frameworks were placed into one of the research streams. The literature review led to the identification of one comprehensive framework of antecedents of entrepreneurial career choice that can be used for the present investigation. This framework, however, has not been previously revised.

Stage 2

With the objective of revising the framework of antecedents of entrepreneurial career choice identified in Stage 1, a literature search was conducted to find support for the relationship between each antecedent in the framework and entrepreneurial career choice. This led to the drafting of a revised conceptual framework, which represents an extension of theory in the entrepreneurial-career-choice field.

Stage 3

To prepare the foundation for validating the conceptual framework empirically, a literature search was conducted to identify in the literature validated measurement instruments for the variables of the framework. A measurement framework was built, comprising validated and ad-hoc measurement instruments.

Stage 4

In order to investigate the relationship between the antecedents of the conceptual framework and entrepreneurial career choice, an empirical study was carried out. The sample consisted of Grade-10, -11 and -12 learners of South African secondary schools. The measurement instrument was a questionnaire, compiled starting from the measurement framework constructed in Stage 3.

Stage 5

In this stage, the study aimed to investigate the status of youth entrepreneurship in South Africa. More specifically, the status of secondary-school students' entrepreneurial-career-choice intentions was examined. The study also investigated significant relationships between entrepreneurial-career-choice intentions and individual and background variables, as well as inter-relationships among individual and background variables.

1.8. Outline of the thesis

Chapter 1 introduces the study. Chapter 2 covers a background study on career-choice research, outlining the main existing theories, models and research contributions. Chapter 3 provides a panoramic view on the status of youth entrepreneurship. After Chapter 3, this study is organised in four independent papers.

Chapter 4 (Paper 1) performs a critical review of the research on the antecedents of entrepreneurial career choice. It contributes a classification of the extant literature in this field in three, clearly defined, research streams. It ends with the identification of an existing framework of antecedents of entrepreneurial career choice that can serve as a starting point for the present study.

Chapter 5 (Paper 2) conducts a thorough literature search to revise the framework identified in Paper 1. It puts forward a revised conceptual framework of antecedents. In view of validating the conceptual framework of antecedents empirically, it builds a measurement framework based on validated measurement instruments available in the literature and on ad-hoc measurement instruments.

Chapter 6 (Paper 3) validates the conceptual framework of antecedents empirically by investigating secondary-school students' entrepreneurial-career-choice intentions and which antecedents of the framework are related to these intentions. The results of this investigation represent a first step towards building a theory of antecedents of entrepreneurial career choice.

Chapter 7 (Paper 4) addresses the status of youth entrepreneurship in South Africa. It examines secondary-school students' levels of entrepreneurial-career-choice intentions. It

also analyses significant relationships between these intentions and individual and background variables, as well as inter-relationships among these variables.

Chapter 8 presents the conclusions of this study, including limitations and recommendations.

Figure 1.1 provides a graphical representation of the outline of the thesis.

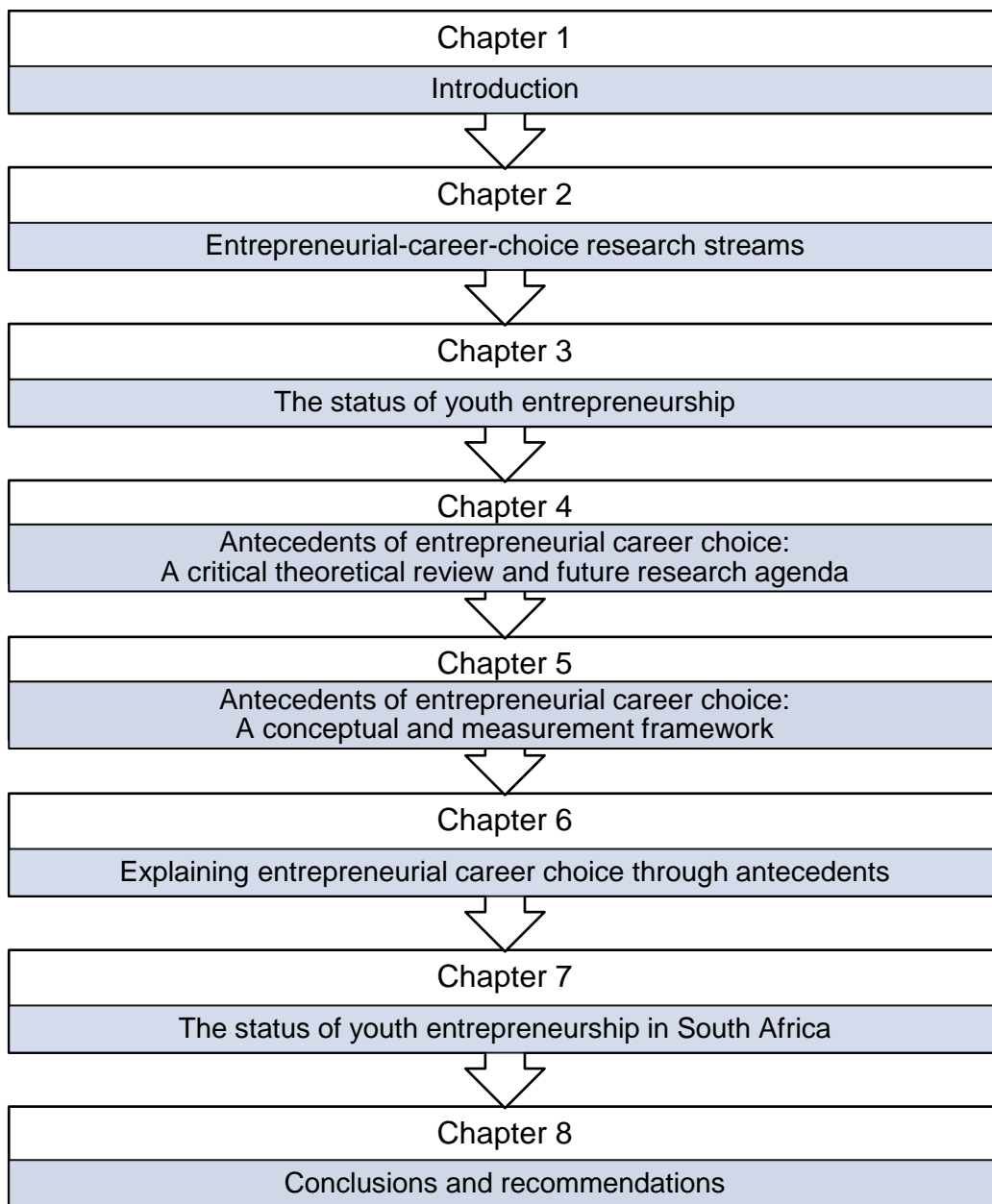
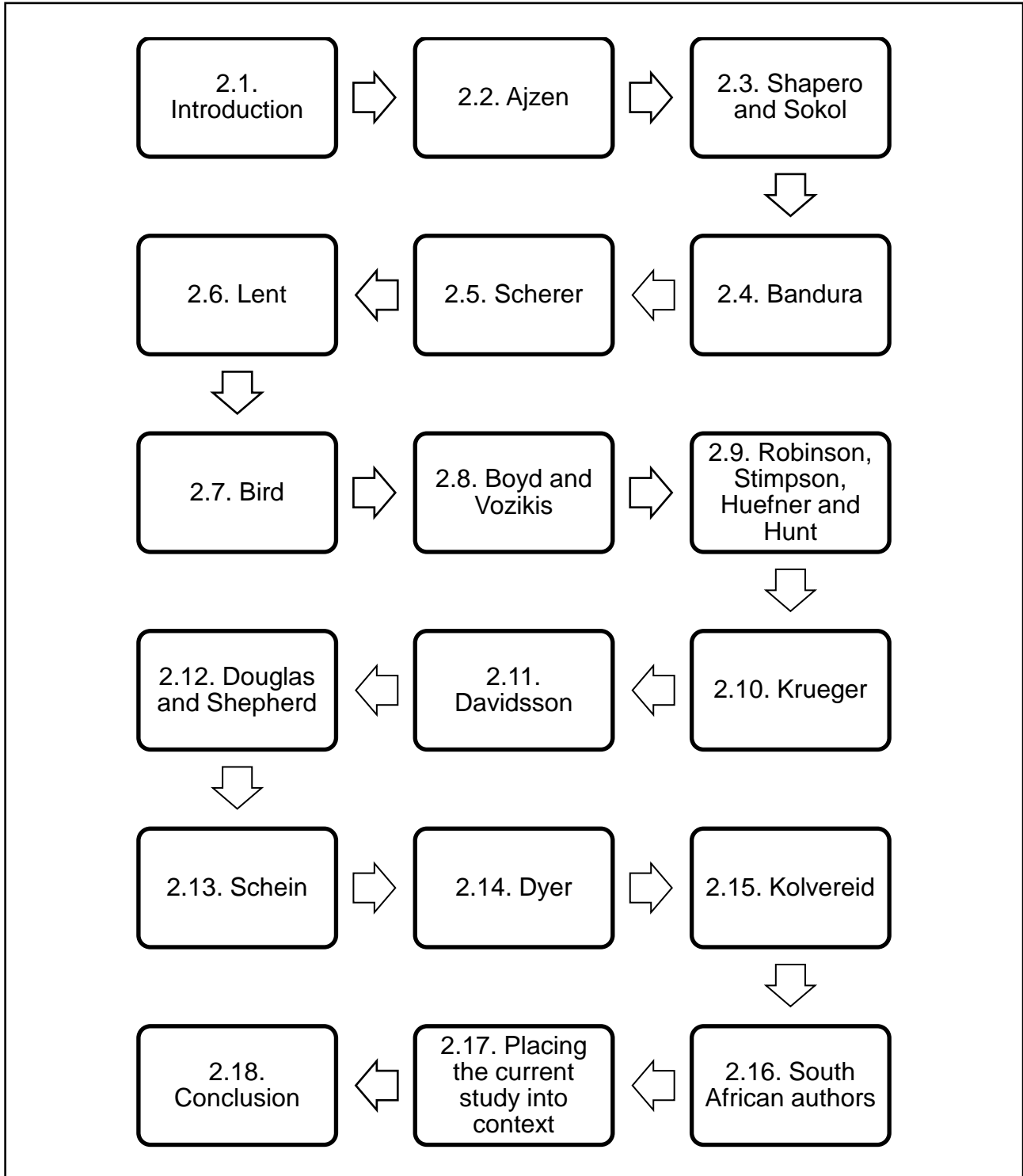


Figure 1.1: Thesis outline

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CHAPTER 2 LAYOUT



2.1. Introduction

In order to be able to identify an existing framework suited for validating the factors relating to entrepreneurial career choice within a sample of secondary school students, this chapter reviews past research on entrepreneurial career choice with a focus on the factors that relate to this choice.

In the analysis on entrepreneurial career choice, a plethora of theories and frameworks spanning the psychological, behavioural and career choice fields exists. However, the studies underlying such theories and frameworks have often been conducted in isolation, so that a unified and comprehensive picture of the research findings on entrepreneurial career choice and related factors is currently not available.

The present section of this paper reviews the most relevant authors and their research contributions and attempts to group the existing theories and frameworks in clearly identifiable research streams. At the same time, the literature review conducted in this chapter evaluates the analysis of the factors relating to entrepreneurial career choice performed by previous research, laying the foundation for identifying a comprehensive model of such factors that can be utilised to investigate them among secondary school students.

What follows is a description of relevant theories and frameworks on entrepreneurial career choice and related factors according to the authors that have devised them.

2.2. Ajzen (Ajzen; Ajzen & Fishbein)

Ajzen (1985: 11) observes that human action follows, either explicitly or implicitly, well-formulated plans. Actions, in this perspective, are guided by intentions. Nevertheless, not all intentions are put into action, as some are abandoned altogether and others are revised. Ajzen examined the relations between intentions and actions, more specifically, the way in which goals and plans influence behaviour and how factors can induce people to change their intentions or hinder them in the successful execution of their behaviour.

The first theory that resulted from his research on intentions and actions is the Theory of Reasoned Action by Ajzen and Fishbein (1980). The main assumption behind this theory

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is that human beings decide on their courses of action according to a rational volitional process (Ajzen & Fishbein, 1980: 5). Consistent with this view, the Theory of Reasoned Action identifies *intentions* as the main determinant of an individual's actions or behaviour. In turn, the two basic determinants of a person's intentions are attitude toward the behaviour and subjective norm (Ajzen & Fishbein, 1980: 6). The factor *attitude toward the behaviour* corresponds to the person's evaluation of the behaviour to be performed. In other words, the action to be carried out can be seen as either positive or negative, and this evaluation will influence the person's intention to perform the action. The factor *subjective norm* encompasses the social pressure felt by the individual to execute or not to execute the behaviour in question. The weight exerted by each of the above two factors on the individual's intention depends on the relative importance attributed by the individual to attitudinal considerations as opposed to societal normative considerations (Ajzen & Fishbein, 1980: 7).

After understanding that behaviour is influenced by intentions and that intentions are affected by both attitude toward the behaviour and subjective norm, Ajzen and Fishbein further investigated what drives attitude toward the behaviour and subjective norm. They came to the conclusion that these two factors are a function of beliefs (Ajzen & Fishbein, 1980: 7). Attitude toward the behaviour is influenced by the beliefs that the individual has regarding the positive or negative outcome of his or her behaviour. These beliefs are called *behavioural beliefs*. The more positive the behavioural beliefs, the more favourable a person's attitude toward the behaviour. Conversely, subjective norm is influenced by *normative beliefs*, namely the beliefs that a person has about how society or specific groups of people view the behaviour that the individual is considering performing. A person will feel pressure to perform a certain action if he or she believes that the people with whom he or she identifies think that he or she should perform the behaviour.

The Theory of Reasoned Action excludes factors other than attitude toward the behaviour and subjective norm that may play a role in determining behaviour. These other factors are called *external variables* by Ajzen and Fishbein (1980: 9) and include personality traits and demographic characteristics. The authors believe that external variables may influence behaviour to the extent that they exert pressure on the determinants of that behaviour. Nevertheless, Ajzen and Fishbein have not included them in the Theory of Reasoned

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Action because they believe there is no necessary relation between any given external variable and behaviour (Ajzen & Fishbein, 1980: 85). At the same time, while affirming that the relationship between external variables and the determinants of behaviour has little bearing on their theory, the authors recognise that investigation of the effects of external variables on behaviour can indeed enhance the understanding of a given behavioural phenomenon. Ajzen and Fishbein (1980: 59), for example, state that the strength with which attitude toward the behaviour and subjective norm impact on intentions can be influenced by demographic variables, personality traits or other individual differences.

The reasons for the authors' non-inclusion of external variables in their theory are that, on one hand, the relation between external variables such as personality traits or demographic variables and behaviour is generally found to be weak and that, on the other hand, these relations change over time (Ajzen & Fishbein, 1980: 85–87). From the point of view of the Theory of Reasoned Action, external variables do not feature in the theory because their effect on behaviour is always mediated by beliefs. Consequently, taking them into account would not improve how accurately attitudes and subjective norms predict behaviour. At the same time, nonetheless, Ajzen and Fishbein (1980: 91) admit that external variables can shed light on the factors determining the beliefs underlying a given behaviour and help researchers in their understanding of the behaviour in question, in so far as they are related to such beliefs.

Ajzen (1985: 18) prescribes exerting caution towards some caveats when using the Theory of Reasoned Action to predict behaviour. According to this theory, intention is the immediate antecedent of behaviour. However, the author acknowledges that the intention-behaviour relation can be disturbed by two instances: i) intentions may change over time, so that the intention initially measured is not the same as the one that influences behaviour when the action is close at hand, and ii) as behaviour must be under volitional control for the Theory of Reasoned Action to hold, when non-volitional factors exert a strong influence on the behaviour in question, the theory's predictive validity is significantly compromised.

With regards to the issue of intentions changing over time, Ajzen (1985: 18–23) identifies the following determinants of intentions changing over time.

- Salience of beliefs: beliefs about the negative consequences of an action as opposed to its positive outcomes may become increasingly salient as the time of the behaviour draws near.
- New information: new events and the new information they produce can cause an individual to revise his or her intentions.
- Confidence and commitment: intentions-behaviour correlations are more stable when intentions are held with more confidence and commitment, in which case the individual will offer more resistance to swaying from his or her initial intentions.
- Individual differences: individuals differ in the way they adjust their behaviour to either internal states or external situations. Some people tend to model their behaviour based on principle and inner disposition, whereas others are more influenced by situational contingencies or pragmatism. In the latter case, individuals' behavioural intentions tend to be more susceptible to change in reaction to changes in the external environment.
- Long-range prediction: at the individual level, the correlation between intentions and behaviour is weaker over the long term (when the behaviour is far away in time from the intentions observed) than over the short term (when the behaviour occurs shortly after the intentions are expressed), because certain events which may occur over a period of time may result in the individual revising his or her intentions. However, the correlation between intentions and behaviour has proved to be stronger over time at the aggregate level, as the changes in intentions by different individuals roughly cancel out, thus allowing for the intentions of the aggregate group of people to remain unchanged.

Regarding the issue of behaviours that are not fully under volitional control, Ajzen (1985: 24–29) emphasises non-volitional internal and external factors which can exert an influence on the intention to perform a certain action.

- The following are internal factors that can influence the successful performance of an intended behaviour.
 - Individual differences: people differ in terms of their ability to exercise control over their own actions. This concept, sometimes termed “locus of control”, describes how certain people perceive that they are significantly in control of

their actions and the goals they want to attain, as opposed to people who believe that external factors control most events in their lives. Individuals with high locus of control tend to have a higher intentions-behaviour correlation.

- Information, skills and abilities: simply put, people who plan to execute an action, but do not have the necessary information available or the required skills and abilities, may change their intentions, or fail to perform the intended behaviour.
- Power of will: also commonly known as “will power” or “strength of character”, power of will is the strength of will needed to perform a certain action against the obstacles that may be encountered. Since power of will varies from person to person, some people turn out to be more determined in performing a certain behaviour than others who are overcome by fear or temptations of different kinds.
- Emotions and compulsions: whereas the above factors present problems of control that can be fairly overcome, some types of behaviour are often believed to be determined by forces beyond our control; such is the case when an individual’s emotions and compulsive behaviours are so strong that his or her voluntary intentions are heavily compromised.
- External factors can also hinder the execution of an intended behaviour.
 - Time and opportunity: an individual may be prevented from carrying out his or her intended behaviour owing to the lack of time required to plan and perform the behaviour or because the opportunity to execute the action in question did not materialise. Although these situational factors may hinder or delay the execution of the planned action, they generally do not alter the person’s intention and its determinants.
 - Dependence on others: on other occasions, when the action to be carried out is significantly dependent on another person’s collaboration, the action can be severely hindered if the individual cannot find a substitute partner.

Summarising Ajzen’s discussion on internal and external factors that hinder the intentions-behaviour relation, it can be said that this relation can be disrupted at two points: firstly, at the level of the intention, which can change over time owing to personal and situational factors; secondly, at the level of the performance of the behaviour, in which case internal

and external factors can intervene preventing the individual from performing the intended action.

To include these disturbance factors, Ajzen (1985: 29–35) extended his Theory of Reasoned Action and developed the Theory of Planned Behaviour. As a result of his considerations on the Theory of Reasoned Action, Ajzen comes to view the intention to *try* to perform certain behaviour as the best predictor of said behaviour, since successful performance – as it has been stated above – of the intended behaviour depends on the ability to control various factors that may impede its accomplishment. Owing to these disturbing factors, intentions may change over time or behavioural performance may fail. Ajzen (1988: 133) sums up these control-related factors under the concept of *perceived behavioural control*, which comes to be the third – alongside attitude toward behaviour and subjective norm – antecedent of intention, and which Ajzen (1985: 34) likens to Bandura's (1977b: 79) self-efficacy concept.

According to Ajzen (1985: 35), the Theory of Reasoned Action is a special case of the Theory of Planned Behaviour. In fact, in the event that perceived behavioural control is so strong that it is equal to the actual full degree of control over the behaviour, the individual is in control of all the factors that may disrupt the intentions-behaviour relation and the likelihood of behavioural attempt is equal to the likelihood of behavioural performance.

The following details on the perceived-behavioural-control antecedent to intention of the Theory of Planned Behaviour are worth mentioning.

Firstly, perceived behavioural control may act on intentions without the mediation of the other two antecedents of intentions, namely, attitude toward the behaviour and subjective norm. In fact, people who believe that they are capable of performing certain behaviour, given the situation at hand, are likely to have a high degree of intentions to carry out the behaviour in question (Ajzen, 1988: 133–134).

Secondly, if perceived behavioural control equates with some degree of accuracy with actual control, then it can predict behaviour directly, without the mediation of intentions

(Ajzen, 1988: 134). However, this aspect of perceived behavioural control has not been empirically supported (Ajzen, 1988: 140).

Lastly, as attitude toward the behaviour and subjective norm are determined by behavioural beliefs and normative beliefs, respectively, so control beliefs influence perceived behavioural control. These control beliefs ultimately include the above-mentioned factors that impact on intentions changing over time or that create non-volitional conditions to the performance of the behaviour (Ajzen, 1988: 134–135), and also include past behaviour and experience (Ajzen, 1988: 132).

It is important for the current study on entrepreneurial career choice to note that Ajzen (1985: 34–36) includes under the concept of perceived behavioural control the following variables: the subjective probability of success in performing certain behaviour, the subjective probability of success attributed to the referents (whether or not others believe in the person's ability to perform the behaviour) and the degree of control over internal and external factors.

Ajzen's Theory of Planned Behaviour has been used extensively to explain human behaviour. Gird and Bagraim (2008), for instance, used the Theory of Planned Behaviour to predict university students' entrepreneurial intentions. They found that the Theory of Planned Behaviour significantly explains a good percentage of the variance in students' entrepreneurial intentions (Gird & Bagraim, 2008: 718) and that prior exposure to entrepreneurship influences entrepreneurial intentions through its impact on the determinants of intentions: attitude toward the behaviour, subjective norm and perceived behavioural control.

The theory also has been subjected to a few criticisms; which Ajzen (2011) addressed by pointing out that studies using the Theory of Planned Behaviour need to be based on the same theoretical stances as this theory.

2.3. Shapero and Sokol

Criticising the plethora of definitions of entrepreneur, Shapero and Sokol (1982: 77–78) prefer to focus on the *entrepreneurial event*, which they conceive as comprising the

following elements: i) initiative-taking, ii) consolidation of resources, iii) management, iv) relative autonomy and v) risk-taking.

In developing their Theory of the Entrepreneurial Event, Shapero and Sokol (1982: 78) attempt to answer two basic questions: 1) what brought about the action that lead to a change in the entrepreneur's former life path? and 2) why does the entrepreneur choose to follow this particular path, the generation of an entrepreneurial event, and not one of the myriad other actions available?

To answer the first question, Shapero and Sokol (1982: 79) addressed their attention to the existence of vectors, forces that keep an individual moving along the same track at any given time, and stated that it takes a powerful force in a new direction or the accumulated effect of many forces to induce an individual to change his or her life path. More concretely, the authors identified i) negative displacements, ii) between-things situations and iii) positive pulls, as forces causing a life path change (Shapero & Sokol, 1982: 79–82). Negative displacements are externally imposed situations, such as being forced to emigrate, losing one's job, suffering insults, being unsatisfied with life, reaching middle age or being divorced or widowed, that may cause someone to consider starting a business. Between-things situations correspond to an individual's being out of place or between things, such as when one has just been discharged from military service, has completed his or her studies or a project or has recently come out of prison. Finally, positive pulls are positive factors, such as a business partner, mentor, investor or customer offering mentoring, financial support, or just psychological support, that encourage someone to start a business.

According to Shapero and Sokol (1982: 82), people react differently to these forces. The nature of the reaction depends on one's individual perceptions and interpretation, which are a function of the individuals' psychological differences.

In an attempt to answer the question why a certain action is taken as opposed to the many other possible actions available, Shapero and Sokol (1982: 82–87) introduce the concepts of *perceptions of desirability* and *perceptions of feasibility*. The first deals with how desirable starting a business is, whereas the second is related to the actual feasibility of

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setting up a business venture. These perceptions are influenced by both one's cultural and social environment and provide an understanding of which actions will be contemplated and eventually carried out. Individuals differ in their perceptions of desirability and feasibility, and these differences depend on the situation and on socially- and culturally-implanted predispositions. A third concept introduced by Shapero and Sokol to explain why a certain action path is chosen over alternative ones is *propensity to act*, or a firm personal disposition to act upon one's decisions.

People's perceptions of desirability are tightly connected with their value systems: if entrepreneurship is highly valued by a person's social system, then setting up a business will be more desirable. The factors that contribute to shaping values and perceptions of desirability are the family, peers, previous work experience, ethnic group, classmates, colleagues and mentors.

Perceptions of feasibility include antecedent factors such as financial support, other support such as skills training, demonstration effect (setting up a business in a well-know and successful trade), models (following a proven business model), mentors and partners.

Needless to say, perceptions of desirability are closely associated with perceptions of feasibility. The more feasible an action, the more desirable it becomes, and vice versa. The more desirable an action, the greater the extent to which an individual would consider its feasibility.

For the purposes of the current piece of research, it is important to note that entrepreneurial ventures are the result of interacting situational and cultural factors (Shapero & Sokol, 1982: 87), encompassed by the concepts of perceptions of desirability and feasibility.

De Clercq, Honig and Martin (2012) examined how people's entrepreneurial-career-choice intentions are influenced by their perceptions of their ability to become successful entrepreneurs and of the attractiveness of this career path, which are concepts similar to perceived feasibility and perceived desirability. The authors focused their analysis on two factors: learning orientation and passion for work. The former corresponds to people's

propensity to search continuously for new knowledge, while the latter constitutes people's propensity to process work-related knowledge while executing tasks (De Clercq *et al.*, 2012). They found that, for individuals with higher levels of learning orientation and passion for work, the relationship between perceived feasibility and entrepreneurial intentions and between perceived desirability and entrepreneurial intentions is stronger. It can be concluded that learning orientation and passion for work are moderators of these relationships.

2.4. Bandura

Bandura attempted explaining human behaviour from a psychological point of view and in so doing elaborated the Social Learning Theory, which states that the individual's behaviour, other personal factors and environmental factors all influence each other in varying degrees depending on the setting and on the behaviour at hand (Bandura, 1977b: 9–10). According to the Social Learning Theory, human behaviour is explained by both personal and environmental variables (Bandura, 1977b: 11–12), and individuals model their actions based on what they have learned through the observation of other people's behaviour (Bandura, 1977b: 22).

Bandura later developed the Social Learning Theory into the Social Cognitive Theory (Bandura, 1986) to include new elements resulting from his analysis on human behaviour. More specifically, the latter theory introduces the concept of triadic reciprocity (Bandura, 1986) to explain the interactions between persons and their behaviour and environments. In this scheme of causality, personal attributes (psychological and physical), external environmental factors and manifest behaviour, all mutually affect each other. Thus, behaviour is not a consequence of the interaction between the person and the environment, but a person's behaviour also has an influence on the individual and his or her expectations and goals and on the environment and its constraints.

In Bandura's Social Cognitive Theory the personal agency is heavily emphasised. The view is that the person is an active shaper of his or her experience and attributes significant importance to cognitive processes as important determinants of the individual's perception of reality and ability to self-regulate (Bandura, 1986).

At the core of the Bandura's Social Learning Theory and Social Cognitive Theory is the concept of *self-efficacy* (Bandura *et al.*, 2001: 187; Bandura, 2001: 10). According to the psychologist, self-efficacy is the strength of people's convictions in their own effectiveness in executing the behaviour required to achieve certain outcomes (Bandura, 1977b: 79). Therefore, the motivation behind carrying out a certain action can be traced back to self-efficacy, which describes the individual's confidence in the successful performance of a task that is necessary to achieve the desired goals (Bandura, 1977a: 193). Consequently, people will avoid situations and actions they believe they are unable to deal with, while they engage in activities and settings with which they feel comfortable (Bandura, 1977b: 79–80).

Bandura offers self-efficacy as an explanatory concept for human behaviour. However, he admits that the necessary skills and incentives need to be present in the individual for self-efficacy to shed light on the individual's behaviour effectively (Bandura, 1977a: 194).

Bandura (1977a: 195–200, 1977b: 80–83) attributes an individual's learning experience to four sources of information that impact on self-efficacy: i) performance accomplishments, ii) vicarious experience, iii) verbal persuasion and iv) emotional arousal.

Performance accomplishments reinforce self-efficacy through mastery experiences. If a person has experienced success in performing certain behaviour, then he or she will feel more confident in performing that behaviour again in future. On the contrary, failure demolishes self-efficacy beliefs.

Vicarious experience is the observation of other people succeeding at a difficult task. Although vicarious experience strengthens self-efficacy, especially if people of widely differing characteristics are observed succeeding, its effect on self-efficacy is weaker than performance accomplishments, where the individual is involved in the first person in carrying out certain activities.

Verbal persuasion is the ensemble of suggestions given by others that the individual is able to cope successfully with a particular situation. Although it is not as effective as

performance accomplishment in arousing self-efficacy perceptions, verbal persuasion can lend a helpful hand in reinforcing the positive effects of the former determinant.

Finally, emotional arousal is more of a character-based variable and relates to an individual's ability to deal with a challenging situation from an emotional point of view. Stress and anxiety can, in fact, undermine the individual's confidence as to whether he or she can cope with the situation at hand. Fear arousal can be diminished through the acquisition of behavioural means for controlling potential threats found in situations to deal with.

Bandura (1977a: 200–201) made a significant contribution to explaining human behaviour through his Social Cognitive Theory. He pointed out that the above-mentioned impacts of information on perceived self-efficacy depend on how such information is cognitively appraised (cognitive control), i.e. on how the individual filters information from the environment. The way in which various individuals may factor in information depends on the following factors:

- discrimination processes, which make a person discard certain information and retain other;
- cognitive appraisals of the causes of one's behaviour, which can lead the individual to attribute achievements to his or her own abilities instead of external variables, and vice versa;
- ascription of successful accomplishments to ability versus effort: in fact, self-efficacy is reinforced by the perception that success is attributable to one's ability and not as much to effort, whereas effort-intense activities do not raise perceived self-efficacy;
- cognitive appraisals of the difficulty level of the tasks, as mastering difficult tasks contributes to increased levels of self-efficacy; and
- the rate and pattern of attainments, since an initial failure followed by increasingly successful endeavour raises self-efficacy, whereas good performance followed by progressively lower success levels undermines self-efficacy.

Finally, over and above the self-efficacy determinants mentioned above, situational circumstances also play a role in self-efficacy perceptions. Needless to say, some

situations prove to be more challenging than others so that, assuming that all the above-mentioned sources of information are equal, more challenging tasks will be associated with lower levels of self-efficacy (Bandura, 1977b: 83). If, for example, someone is given a task he or she is very competent at, but the consignment is exceptionally difficult, the person's self-efficacy will be low.

Although at times self-efficacy is equated with the concept of locus of control, Bandura (1977a: 204) specifies that the two concepts are not the same. In fact, even though people may be convinced that outcomes are determined by their own actions (locus of control), as previously stated, self-efficacy is also dependent on people's beliefs about their ability to execute the task at hand, on the incentives to carry it out, on the cognitive appraisal of information and on situational factors.

Although not as relevant for the present analysis, it is worth mentioning that Bandura (1977a: 193, 1986) envisioned the concept of *outcome expectations*, or the person's beliefs that certain behaviour will successfully lead to certain outcomes, as also playing a role in explaining human behaviour. Whereas self-efficacy determines whether a person will attempt to perform certain behaviour because he or she believes in his or her capability to do so, outcome expectations focus on the part of the behavioural decision that deals with what outcome will result from the behaviour at hand. Social Cognitive Theory posits that people perform actions based on their beliefs regarding what they are able to achieve (self-efficacy) and on their convictions about the expected outcomes of their actions (outcome expectations) (Bandura, 1986: 231). As hinted at previously, however, self-efficacy is a more potent determinant of behaviour (Bandura, 1986).

Interestingly, Bandura *et al.* (2001) applied the self-efficacy concept to children's career choices. The authors undertook this study with the belief that perceived self-efficacy – people's conviction that their own efforts will enable them to complete a certain task successfully – is a core factor in career selection and development (Bandura *et al.*, 2001: 187). In the career-choice domain, self-efficacy can serve as a potential explanatory variable for career selection because it illustrates how people do not consider occupations for which they deem to lack the necessary capabilities, irrespective of how appealing those occupations may seem. Controlling for level of ability, prior level of academic achievement,

scholastic aptitude and vocational interests, self-efficacy perceptions are able to predict occupational choices (Bandura *et al.*, 2001: 188). Bandura *et al.* (2001: 198–202) concluded the following from their research.

- Familial socioeconomic status only had an indirect impact on children's occupational self-efficacy and career choice through the parents' belief in their ability to influence their children's academic performance.
- Parents' aspirations influenced children's occupational self-efficacy and career choice through the mediation of children's self-conceptions of efficacy, academic aspirations and achievement.
- Children's perceived self-efficacy was related to their choice of future careers for which they believe they have the necessary capabilities. In particular, children's beliefs in their academic efficacy had the strongest impact on their perceived occupational self-efficacy. Moreover, perceived academic efficacy impacted on perceived occupational capabilities through its effect on academic aspirations.
- Finally, perceived occupational self-efficacy affected the type of occupations selected by children, the occupational level they select within the particular career and the types of work life they disfavoured.

An important conclusion stemming from Bandura *et al.*'s (2001: 202) study is that children's occupational trajectories are defined quite early on in their lives.

Bandura (1997: 212–524) has applied the Social Cognitive Theory to various psychosocial fields. Other authors, who attempted to develop it in the career-choice sphere, have adopted his theory too. Krumboltz and Mitchell (1976), for instance, applied the Social Learning Theory to the sphere of career choice and asserted that individuals are more likely to select a certain occupation if they can observe role models successfully involved in activities being part of that occupation. Betz and Hackett (1981, 1986) have also applied the concept of self-efficacy to career decisions and studied the concept of career self-efficacy. This denotes people's belief in their effectiveness regarding processes associated with career selection and adjustment.

Other authors have applied the self-efficacy construct more specifically to the study of the antecedents of entrepreneurial career choice. In these studies, entrepreneurial self-efficacy (ESE) is postulated to moderate the relationship between antecedents and entrepreneurial career choice. Kasouf, Morrish and Miles (2013), for instance, have built a conceptual framework where: i) experience, conceived as composed of human capital (personal skills) and social capital (a person's network of relationships), influences ESE; ii) explanatory style, that is the person's attitude in cognitive processes, ranging from optimistic to pessimistic, moderates the relationship between experience and ESE, because it is responsible for the person's interpretation of experience; and iii) alternative opportunities, which entail the opportunity cost of other career options available, moderate the impact that ESE has on entrepreneurial career choice. In the authors' view, therefore, experience, which encompasses both human and social capital, and explanatory style are antecedents of entrepreneurial career choice (Kasouf *et al.*, 2013). Prabhu, McGuire, Drost and Kwong (2012) also investigated ESE and found that it functions as both a mediator and moderator of the relationship between having a proactive personality and entrepreneurial intentions.

Bandura's self-efficacy construct has been widely used to explain human behaviour. Bandura (2012) has recently addressed claims that self-efficacy has debilitating or null effects on people's action motivations by further specifying the functional properties of self-efficacy.

2.5. Scherer (Scherer, Adams, Carley & Wiebe; Scherer, Adams & Wiebe)

Scherer, Adams, Carley and Wiebe (1989) attempted to investigate how entrepreneurial role models affect entrepreneurial career choice starting from Bandura's Social Learning Theory. In so doing, they have contributed an interesting model of how a background factor such as entrepreneurial role models influences entrepreneurial career choice. Although one cannot just simply replace entrepreneurial role models in Scherer, Adams, Carley, *et al.*'s model for any other background factors, it is, nonetheless, worth highlighting their contribution.

Simply put, Scherer, Adams, Carley, *et al.* (1989: 56) state that the presence of a parental entrepreneurial role model is filtered by the individual's observational learning, so that

evaluations of the parent's entrepreneurial performance are thus formed through the individual's cognitive abilities. Through modelling, the individual will, by observing the entrepreneurial parent, form a positive or negative view about entrepreneurship as a career. From here, Scherer, Adams, Carley, *et al.* (1989: 65–66) view entrepreneurial career preference as a multi-dimensional phenomenon composed of two dimensions: *entrepreneurial preparedness* and *entrepreneurial career expectancy*. The former encompasses task self-efficacy, namely, people's belief that they have the competencies necessary to become entrepreneurs (Scherer, Adams, Carley, *et al.*, 1989: 56–57). It also encompasses education and training aspirations, which can be defined as the degree of training and education pursued by an individual in relation to preparing for an entrepreneurial career. The second dimension of entrepreneurial career preference equates with people's judgment about the likelihood that an entrepreneurial career will be sought (Scherer, Adams, Carley, *et al.*, 1989: 66). These two dimensions will be either reinforced or weakened by the presence of parental entrepreneurial role models through the process of social learning.

Scherer, Adams, Carley, *et al.* (1989: 66) found that this model predicts the phenomenon correctly; that the higher the level of performance of parental entrepreneurial role models in their entrepreneurial activities, the higher the level of the individual's entrepreneurial career preference.

It is noteworthy mentioning that in a parallel version of this model (which was not tested), Scherer, Adams and Wiebe (1989) envisaged *other environmental influences* and *attributes of the observer* as being the object, together with parental entrepreneurial role models, of the individual's social learning process impacting on entrepreneurial career preference. Moreover, the authors included personal traits such as *achievement*, *personal control*, *innovation* and *risk taking* as mediating the effect of the individual's cognitive evaluations on entrepreneurial career preference through social learning. Although the authors did not test this model, based on previous research on career choice, they deemed it important to include environmental and personal factors in their model.

2.6. Lent (Lent & Brown; Lent, Brown & Hackett; Lent, Paixão, Silva & Leitão)

Lent, Brown and Hackett (Lent & Brown, 1996; Lent *et al.*, 1994) introduced the Social Cognitive Career Theory (SCCT) attempting to bring together existing career development theories. Mainly derived from Bandura's (1986) Social Cognitive Theory, the SCCT attempts to explain the complex dynamics underpinning an individual's career and academic trajectories (Lent & Brown, 1996: 311; Lent *et al.*, 1994: 80). More specifically, by encompassing a number of personal, contextual and behavioural variables, the theory focuses on the processes through which i) career and academic interests are formed, ii) interests, in conjunction with other factors, determine career choices and iii) individuals attain different levels of performance and persistence in their academic and career efforts (Lent & Brown, 1996: 311).

Interestingly enough, Lent *et al.* (1994: 80–81) focused their research on late adolescence and early adulthood, life periods which they believe to be most associated with career choice.

At its very core, the SCCT adopts three variables from the Social Cognitive Theory perceived to influence career decisions: self-efficacy, outcome expectations and goals. The role of self-efficacy and outcome expectations in determining behaviour has been explained above, but at this stage it is important to specify that goals – conceived as people's desire to perform a certain action or to achieve a specific outcome – play a critical role in the self-regulation of behaviour, in that they help people to organise, guide and sustain their behaviour over time (Bandura, 1986).

Beyond these three elements of the Social Cognitive Theory, Lent *et al.* extended the theory by incorporating three career-choice-related models: a model of interest development, a model of career choice and a model of career-related performance (Lent & Brown, 1996; Lent *et al.*, 1994).

The SCCT, which Lent *et al.* (1994: 109–113) also verified through a meta-analytical literature review, can be summarised by the following statements (Lent & Brown, 1996; Lent *et al.*, 1994; Lent, Brown & Hackett, 2000; Lent, Paixão, Silva & Leitão, 2010).

- Individuals refine their skills, establish personal performance standards, enhance their self-efficacy for certain tasks and form outcome expectations regarding their performance through continued activity practice and feedback. Factors encouraging individuals to engage in and practice certain activities (thus, the determinants of their self-efficacy and outcome expectations) include their environment and important persons, such as parents, peers and teachers.
- Self-efficacy and outcome expectations regarding particular activities affect career-interest formation. Thus, a person will be more interested in performing a career-related activity when he or she feels capable of performing it and when he or she perceives that carrying out the activity will produce worthwhile outcomes. Moreover, self-efficacy impacts outcome expectations positively. In fact, the more an individual feels capable of performing a task, the more he or she believes that the task will successfully lead to a desired outcome.
- Self-efficacy, outcome expectations and career-related interests encourage the formation of goals in a career field. These goals, in turn, help the individual to actually engage in the activity at hand. Moreover, engagement in the activity produces a series of achievements, either positive or negative, which ultimately represent personal performance accomplishments that either reinforce or weaken self-efficacy and outcome expectations.
- Personal abilities and values also contribute to the formation of career interests, but their impact is felt mainly through their influence on self-efficacy and outcome expectations. More specifically, objective ability impacts on self-efficacy beliefs, while work values affect outcome expectations.
- Self-efficacy, outcome expectations and abilities and values are not the only factors influencing the formation of career interests, goals and performance. Rather, they are affected by, and function in conjunction with, personal and contextual variables, including gender, race, ethnicity, and socioeconomic factors. On a personal level, however, these factors are believed to influence career interests and choice through their immediate effect on the self-cognitive variables of self-efficacy and outcome expectations, mainly through the different personal learning experiences, abilities and values that engender self-efficacy and outcome expectations.

- Other external contextual factors exert some influence during the career-choice phase. These encompass certain environmental conditions that foster or hinder the translation of career interests into career choice, such as finance, regulatory environment, socio-cultural barriers, etc. The strength of contextual variables on career choice, however, depends on the individual's cognitive appraisal and response to information from the environment.

2.7. Bird

Bird offers an explanation as to how new or transformed organisations are formed with her Entrepreneurial Intentions Model (Bird, 1988, 1989). The author is among the first to utilise the term “entrepreneurial intentions”, which she defines as the state of mind directing a person's attentions and action toward self-employment as opposed to organisational employment (Bird, 1988). According to the author (Bird, 1989: 8), intentionality is a conscious state of mind that directs attention, and therefore experience and action, towards a goal or a means to achieve it. In short, intentions lead to actions. In turn, these lead to either creating a new venture or creating new values in existing ventures (Bird, 1988: 443). Bird is thus one of the first authors to define the nature of entrepreneurial intentions.

In an effort to provide an indication of what prompts an individual to develop entrepreneurial intentions, Bird (1988, 1989) mentions two dimensions. The first being location, which refers to whether the individual's motivation to start a new venture comes from the individual himself (internal locus) or from stakeholders and/or the market (external locus) (Bird, 1989: 8). The second dimension is the prospective entrepreneur's relative rationality versus intuition (Bird, 1989: 8). Firstly, a person's rational, analytic, and cause-and-effect-oriented processes determine intention and action. Secondly, intuitive, holistic, and contextual thinking influences an entrepreneur's intention and action (Bird, 1988: 443). The former type of thinking is more prominent in activities such as drafting formal business plans, analysing opportunities, acquiring resources and setting goals, while the latter is more ubiquitous among activities such as networking, focus, persistence and vision of the entrepreneurial act (Bird, 1989: 9).

The antecedents to rational and intuitive thinking during the formulation of entrepreneurial intentions are personal and social in nature (Bird, 1988: 443). The personal factors comprise i) personal history, such as having prior experience as an entrepreneur, ii) personality characteristics, which include need for achievement and locus of control, and iii) abilities, such as the ability to promote ideas. The social factors encompass social, political, and economic variables, such as displacement, changes in markets and government deregulation of industries.

2.8. Boyd and Vozikis

Boyd and Vozikis (1994) developed Bird's Entrepreneurial Intentions Model further to include the self-efficacy construct. The authors included self-efficacy in their Model of Entrepreneurial Intentionality, as self-efficacy affects the strength of entrepreneurial intentions and the likelihood that they will lead to entrepreneurial actions (Boyd & Vozikis, 1994: 66).

Boyd and Vozikis' (1994: 69) model suggests that the individual's social, political and economic context, on the one hand, and his or her history, personality and ability, on the other, represent information stored in the prospective entrepreneur background and influence his or her thought processes. These beliefs contribute to the formation of the person's attitudes and perceptions, through rational analytic thinking, and to the creation of self-efficacy, through intuitive holistic thinking. In line with Bandura (1977b: 80–83), self-efficacy is deemed by Boyd and Vozikis to be influenced by performance accomplishments, vicarious experience, verbal persuasion and emotional arousal. Together, the individual's attitudes and perceptions and self-efficacy influence the behavioural intentions of the prospective entrepreneur, which in turn urge the individual to take action. Finally, according to Boyd and Vozikis' (1994: 70) model, self-efficacy has a moderating effect on the relationship between entrepreneurial intentions and the likelihood that these intentions will translate into entrepreneurial actions. This explains why entrepreneurial intentions do not always propel individuals into starting a business. Starting a venture also depends on an individual's level of self-efficacy, which is in line with that individual's confidence level, knowing that he or she can successfully create a new venture.

This model made a valuable contribution by including the concept of self-efficacy in Bird's model in order to explain both the development of entrepreneurial intentions and the conditions under which these intentions become actions.

2.9. Robinson, Stimpson, Huefner and Hunt

Robinson, Stimpson, Huefner and Hunt (1991: 13–17) looked at previous psychology-oriented research on entrepreneurship and advocate that personality traits and demographic characteristics are poor predictors of future entrepreneurial action. Instead, they support the use of attitude theory for the prediction of entrepreneurial action.

Attitudes, which can be defined as the predisposition to respond in a generally favourable or unfavourable manner with respect to the object of the attitude (Robinson *et al.*, 1991: 17), according to Robinson *et al.*, more accurately reflect the dynamic nature of people's behaviour. They, in fact, take into account the notions that people may change their attitudes towards a certain action over time and that an individual's attitudes are formed in the context of an interactive relationship with the environment (Robinson *et al.*, 1991: 18). The rate of change of an individual's attitudes will thus depend on how deeply rooted they are in the individual and on the intensity of experiences that influence them.

Based on the above, Robinson *et al.* (1991) devised the Entrepreneurial Attitude Orientation Scale, which identifies four attitudes as successfully predicting entrepreneurial action: i) achievement in business, ii) innovation in business, iii) perceived personal control of business outcomes and iv) perceived self-esteem in business. Although these four constructs are derived from previous personality- and demographic-approach literature, Robinson *et al.* focus on their attitudinal aspect by examining three aspects of each construct, which together determine attitudes: cognition (the beliefs and thoughts about the object of the attitude), affect (positive or negative feelings toward the object) and behaviour (behavioural intentions and predispositions to behave in a given way toward the object) (Robinson *et al.*, 1991: 17).

2.10. Krueger (Krueger; Krueger & Brazeal; Krueger & Carsrud; Krueger, Reilly & Carsrud)

Krueger's work falls within the stream of intention models of entrepreneurship. He believes that entrepreneurial activity such as starting a business is a planned behaviour and is thus best predicted by intentions towards the behaviour (Krueger, 1993: 5; Krueger & Brazeal, 1994: 93; Krueger & Carsrud, 1993: 315; Krueger, Reilly & Carsrud, 2000: 412–413). On the contrary, the planned behaviour of starting a business is not best predicted by beliefs, personality or demographics: these exert an indirect influence on behaviour (Krueger, 1993: 18; Krueger & Carsrud, 1993: 315). In fact, exogenous factors, such as personal and situational variables, have a low empirical prediction value with respect to behaviour (Krueger & Carsrud, 1993: 316; Krueger *et al.*, 2000: 414). Empirical findings have supported the indirect effect of exogenous variables on behaviour through their impact on attitudes (Krueger, 1993: 18). In turn, attitudes affect intentions, which are the best predictors of behaviour, so that the impact of attitudes on behaviour is mediated by intentions (Krueger & Brazeal, 1994: 93).

In sum and more specifically, the Basic Intentions-Based Process Model envisioned by Krueger and Carsrud (1993: 317) depicts exogenous factors impacting on attitudes toward the target behaviour. These, in turn, influence intentions toward the behaviour, which are the main determinants of target behaviour. Moreover, exogenous forces can moderate the relationship between intentions and behaviour.

Krueger based his research on Ajzen's Theory of Planned Behaviour and on Shapero's Entrepreneurial Event model. He and his colleagues advocate that these two models are robust intentions models, both based on a summary of empirical evidence from other studies (Krueger & Carsrud, 1993) and on their own empirical testing (Krueger, 1993; Krueger *et al.*, 2000), although, in this latter instance, they found the subjective norm construct to have low predictive validity with respect to intentions (Krueger *et al.*, 2000: 423–424).

After the Basic Intentions-Based Process Model was fashioned, Krueger and Brazeal (1994) brought together and further expanded upon Ajzen's and Shapero's models by devising the Entrepreneurial Potential Model. More concretely, the authors believe that

Ajzen's and Shapero's models overlap considerably and they advocate the following (Krueger & Brazeal, 1994: 96):

- Ajzen's attitude towards the behaviour and subjective norm equate with Shapero's perceived desirability construct;
- Ajzen's perceived behavioural control equates with Shapero's perceived feasibility, which is, in itself, a construct very similar to Bandura's self-efficacy.

In line with Shapero's model, which Krueger (1993: 18) believes is and has found (Krueger *et al.*, 2000: 423) more comprehensive than Ajzen's Theory of Planned Behaviour, Krueger and Brazeal (1994: 98) adopt the construct of propensity to act, or a stable personality characteristic which disposes an individual to act upon his or her decisions, as a further determinant of entrepreneurial intentions. Thus, Krueger and Brazeal's Entrepreneurial Potential Model features three antecedents to entrepreneurial intentions: i) perceived desirability (incorporating attitude toward the behaviour and subjective norms), ii) perceived feasibility (equivalent to perceived behavioural control and self-efficacy) and iii) propensity to act.

A novelty in this model is the concept of entrepreneurial *potential*. Krueger and Brazeal (1994: 91–92) distinguish potential from intentions and specify that some individuals who are able to take advantage of the optimal conditions to become entrepreneurs need not necessarily have the intention to do so. Thus, potential is a factor that precedes intentions and that channels the effect of perceived desirability, perceived feasibility and propensity to act towards entrepreneurial intentions. To complete the picture, Krueger and Brazeal (1994: 94) place Shapero's concept of *displacement* or *precipitating event* as a factor triggering the translation of entrepreneurial potential into entrepreneurial intentions. If the potential for entrepreneurship is present in an individual, but the intention is lacking, then a salient event such as being fired may urge the individual to want to start a business.

In a later comparison of Ajzen's and Shapero's models, Krueger *et al.* (2000: 419) drop the concept and moderating effect of potential from the model, and incorporate into Shapero's construct of propensity to act on the notion that an individual may have potential to start a business and yet not intend to do so. Propensity to act is thus that extra factor that will

allow an individual to move from having the potential for entrepreneurship to having entrepreneurial intentions.

2.11. Davidsson

Davidsson is another author who focused on entrepreneurial career choice from an intentions-based perspective. The reasons for the author adopting an intentions-based approach (Davidsson, 1995: 2–3) are that, firstly, the decision to start a business corresponds to carefully-planned behaviour, so that the relationship between intentions and behaviour are strong, and, secondly, that intentions-theories and models appropriately channel the effect for exogenous factors (traits, demographics and situations) on behaviour through moderators such as intentions. Finally, it is more interesting to know what type of individuals decide to start a business rather than to learn about the characteristics of those who already did so.

With the above orientation in mind, Davidsson (1995) developed and tested an Economic-Psychological Model of the determinants of entrepreneurial intentions. The model, in its tested version, stipulates the following dynamics.

- Intentions predict individuals' choice to start a business venture, although imperfectly, because at times the intention to start a business never translates into the corresponding behaviour.
- Conviction, which is the individual's belief that entrepreneurship is a suitable career for him or her, is a major antecedent to entrepreneurial intentions. This concept is similar to that of perceived self-efficacy (Davidsson, 1995: 6).
- Situation – or, more specifically, current employment status – affects intentions directly and indirectly. Direct effect stems because firm formation can be a reaction to or evolution from current employment status and indirect can develop from the individual's experience of the job currently held, through conviction, as it may be the individual's belief that entrepreneurship is better suited as a career.
- Conviction is, in turn, influenced by general attitudes and domain attitudes. General attitudes are all-embracing and deal with many aspects of life, while domain attitudes are more entrepreneurship-specific. The general attitudes that impact on an individual's conviction that entrepreneurship could be a viable career option are:

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- change-orientation, i.e. a favourable disposition towards life changes;
- competitiveness, a factor which is unique to Davidsson's model;
- valuation of money, although it turned out to be a relatively unimportant factor;
- achievement motivation, although it is not a major determinant of entrepreneurial behaviour; and
- autonomy.

Among the domain attitudes are:

- payoff, a construct encompassing the individual's evaluation of entrepreneurship as a career, based on an evaluation of its workload, risk and financial gain;
 - societal contribution, or the individual's perception of his or her entrepreneurial actions as being valuable to society; and
 - know-how, namely whether the individual would feel confident starting his or her own business venture if the opportunity arose.
- Finally, personal background factors have an influence on general and domain attitudes and, through them, and their effect on conviction, on entrepreneurial intentions. Davidsson includes the following under personal background factors.
 - Gender – The author admits that it is not gender per se, but its influence on how individuals view their capabilities and future career prospects, that impacts on entrepreneurial behaviour. This factor can also have a direct influence on conviction, without being mediated by attitudes.
 - Vicarious experience, in other words, whether the individual has worked in a small entrepreneurial venture in the past, although empirical results show that this factor influences only know-how, and no other attitude, or whether he or she has entrepreneurial role models. This factor, too, can have a direct influence on conviction, without being mediated by attitudes.
 - Education – Educational level merely has a significant impact on know-how and societal contribution.
 - Radical change experience, a construct including factors such as the individual's immigrating to a new country or his or her frequent relocation.
 - Age.

The study conducted by Davidsson (1995: 2) supports the fact that it is sensible to study personal background characteristics when they are placed in context.

2.12. Douglas and Shepherd

Placing themselves in the research stream dealing with the reasons for people choosing to be entrepreneurs or what motivates them to be entrepreneurs, Douglas and Shepherd (2000, 2002) developed and tested a Utility-Maximisation Model of Career Choice, as opposed to other psychological and sociological studies. Under this economic perspective of a career choice between employment and self-employment, career decisions are driven by utility maximisation (Douglas & Shepherd, 2000: 232).

The research conducted by Douglas and Shepherd was triggered by the realisation that personality and demographic characteristics do not effectively distinguish entrepreneurs from non-entrepreneurs, as some non-entrepreneurs exhibit the personality and demographic characteristics ascribed to entrepreneurs, and vice versa (Douglas & Shepherd, 2000: 233). Instead, in line with previous research, the authors share the belief that entrepreneurial intentions are robust predictors of entrepreneurial behaviour and that such intentions are influenced by attitudes, determined by personal and situational background factors, which can also change and develop over time (Douglas & Shepherd, 2000: 233–234). However, Douglas and Shepherd have looked at the issue of entrepreneurial intentions from an economics perspective.

The model of career choice that they developed (Douglas & Shepherd, 2000) postulates that an individual's decision as to whether to be employed or self-employed depends on the utility (or satisfaction) of that decision, which is a function of the following characteristics of the careers under consideration: i) income, ii) attitudes to work effort, iii) attitudes to risk, iv) attitudes to independence and v) other working conditions (such as perquisites and irksome elements of the job). In particular, all things being equal, an entrepreneurial career is going to be selected over a career to be self-employed if the income prospects are higher, if other working conditions are favourable and if the individual has a positive attitude toward hard work, a risk-bearing propensity and a positive attitude toward independence and the responsibilities that come with it. Douglas and Shepherd (2000: 246) devised this model to explain both the selection between single

careers and the choice between career paths made up of many jobs over the working life span. The authors (Douglas & Shepherd, 2000: 249) stress the fact that the utility attached to employment or self-employment is the function of all the above-mentioned factors, so that if the individual has a positive attitude towards work effort, risk and independence, but the income offered by a formal job is more appealing than that attached to self-employment, he or she may choose to be employed in a formal organisation.

When testing their model of career choice, Douglas and Shepherd (2002: 87–88) observed the following facts.

- Individuals consider income, risk and independence when evaluating different career options, and, contrary to their expectations, the level of work effort required by a job is not significantly related to career choice evaluation.
- Entrepreneurial intentions are stronger for those with positive attitudes towards risk and attitudes to independence. Income and work effort, however, were not found to be significant determinants of entrepreneurial intentions.

2.13. Schein

One of the most important contributions to career choice theory is Schein's (1993) work on Career Anchors. The author (Schein, 1993: 1) came up with this model in an attempt to relate people's orientation toward work, motives, values and self-perceived talents with career choice. The career anchors he developed find their meaning in the context of the individual's history and future aspirations.

What triggered Schein's study was the observation of people's career selection and development. Schein (1993: 11) conceives career to encompass how an individual's work life develops over time and how it is perceived by that person. In particular, Schein focuses on the concept of internal career, or how an individual pictures his or her work life and role in that life, as opposed to one's external career, namely the individual's formal position and career progression according to his or her occupation's characteristics.

How a person perceives progression and success in his or her internal career may be different from how another person or society at large perceives it (Schein, 1993: 17). According to Schein (1993: 17–20), the subjective definition of success is tightly attached

to one's career anchor or internal career definition, so that he envisages three dimensions along which career progress and success can be measured, summarised in his *organisational cone* model.

1. Growth in abilities and skills, responsible for people moving across job types. In this dimension, success is subjectively perceived as gaining increasingly more skills through job rotation and/or skills training.
2. Advancement in rank, responsible for people moving up the corporate ladder. In this dimension, the degree to which a person feels that he or she has attained the next hierarchical rank depends on what the individual views as his or her reference group.
3. Increase in influence and power, responsible for people penetrating the inner circle of influence in a certain organisation or occupation. In this dimension, the person's measure of success depends on his or her sense of being in the inner circle and having influence.

As it can be seen, a person's measure of success in terms of career depends heavily on individual aspirations and self-images. The career anchor concept was devised to describe such self-images within an internal career.

Schein (1993: 21–24) suggests that as a career evolves, the person, through experiences, education and work, develops a self-concept that includes three elements: i) talents (perception about one's own strengths and weaknesses), ii) motives (awareness of what needs and goals are deemed most important by the individual) and iii) values (awareness of what is most important to the person). These three elements intertwine and a dominant theme emerges over time in the person's perception of occupations and of oneself in relation to the demands of the job, so that the individual's self-concept starts to function as a guidance system and as an "anchor" that constrains career choices. The career anchor, as defined by Schein (1993: 24), is therefore the self-image, that one element in a person's self-concept that he or she will not give up, even in the face of difficult choices. In other words, a career anchor is a dominant driver in the choice of a career and is a combination of perceived areas of competence, motives and values that someone would not give up when making a career choice (Schein, 1993: 1).

Schein (1993: 26–51) came up with eight career anchors, described below.

1. **Technical/Functional Competence.** People who have this career anchor value the content of their work the most and look for occupations that match and enhance their technical skills.
2. **General Managerial Competence.** This career anchor characterises people who view specialisation as a trap and rather value expertise in several functional areas and in the business and industry at large. These individuals are motivated by increasing level of responsibility, leadership, contribution to the organisation's success, income and advancement up the corporate ladder. They exhibit analytical competence, interpersonal and intergroup competence and emotional competence as distinguishing skills.
3. **Autonomy/Independence.** People who have this career anchor are motivated chiefly by their need for autonomy and independence in their job.
4. **Security/Stability.** This career anchor belongs to individuals whose main driver is the sense of security in their jobs. These people value job tenure, job stability and good retirement plans more than anything else.
5. **Entrepreneurial Creativity.** People who display this career anchor make career decisions based on their overriding need to create new businesses by developing new products and services or by taking over or turning around existing businesses. Moreover, these individuals view their newly-created organisations, products and services as an extension of their personality and as visible proof of their entrepreneurial efforts. They value long-lasting organisations, economically successful products and services, and money as measures of success.
6. **Service/Dedication to a Cause.** This career anchor is exhibited by individuals who choose careers in which they can exercise their central values, serve the community and improve the world in some fashion.
7. **Pure Challenge.** People motivated by this career anchor define success as constantly overcoming increasingly difficult obstacles, solving very difficult problems and winning out over extremely tough opponents. They, thus, seek extremely challenging jobs, such as high-level strategic management consulting positions.
8. **Lifestyle.** This career anchor is proper of individuals who look for occupations that fit in well with their lifestyle and provide a good balance between the needs of the

individual, the family and the career itself. These people especially value flexibility and organisations that display a certain attitude towards a balanced life.

These eight career anchors were found by Schein (1993: 51–53) to be stable over time.

It is important to note that an individual may have more than one factor at play in the choice of a career, but only one element will be the chief determinant of that career. This element is called the career anchor (Schein, 1993: 50–51).

Schein's Career Anchors are still one of the most widely used and most robust career-choice models. Barclay, Chapman and Brown (2013) gathered data from seven empirical career-anchor studies in order to compare Schein's Career Anchors Model with later revisions of it. The authors concluded that Schein's Career Anchors are the model that best distinguishes the different career anchors empirically (Barclay *et al.*, 2013: 444). Leong, Rosenberg and Chong (2013: 12) however, found that the Lifestyle career anchor does not have good internal reliability. The authors also expressed the need to better categorise Schein's Career Anchors, as some of them overlap and others are composed of multiple factors. Finally, Leong *et al.* (2013: 12) found some convergence between Schein's Career Anchors and Holland's (1973) Personality Types. Bezuidenhout, Grobler and Rudolph (2013) also discovered a limitation of Schein's Career Anchors Model by observing that, contrary to Schein's claims, career anchors change over time.

Schein does not mention explicitly the role of personal and environmental factors on career anchor and thus on career choice. Since career anchors, however, are subjectively developed based on one's experiences and on how an individual sees him or herself in terms of talents, motives and values, it can be inferred that they play some role in the crystallisation of the individual's career anchor.

2.14. Dyer

An interesting career choice model is offered by Dyer's Model of Entrepreneurial Careers. Dyer (1994: 7) points to the fact that most studies about entrepreneurship and about careers have been conducted in isolation. In fact, according to the author, entrepreneurship research focused more on the factors propelling someone to become an

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entrepreneur and ceasing its investigation at the point of new venture formation, with little regard for entrepreneurial career progression. On the contrary, career research has focused more onto careers that have clear career paths and roles, attributes which are not shared by the entrepreneurial career. Dyer attempted to bring these two research streams together by developing a model of entrepreneurial careers based on the results of previous research conducted by other scholars. Such a model contains four “sub-theories”: i) a theory of career choice, ii) a theory of career socialisation, iii) a theory of career orientation and iv) a theory of career progression (Dyer, 1994: 8).

Accordingly, the Model of Entrepreneurial Careers developed by Dyer (1994: 9) identifies four major areas under which different factors playing a role in entrepreneurial careers are grouped: i) antecedents influencing career choice, ii) career socialisation, iii) career orientation and iv) career progression. According to this model, entrepreneurial career choice can be influenced by individual factors (be they demographic and/or psychographic, such as entrepreneurial attitudes), social factors (such as role models and family support) and economic factors (such as availability of resource networks and economic resources).

Antecedents influencing career choice include individual factors, social factors and economic factors. Recognising the role that individual factors play in the choice of an entrepreneurial career, Dyer includes under individual factors constructs such as need for achievement, need for control, tolerance of ambiguity and entrepreneurial attitudes. The second antecedent influencing career choice is social factors, which encompass family relationships, family support, community support and role models. The third and final antecedent influencing career choice is represented by economic factors, which include elements such as lack of alternative careers in existing organisations, economic growth/business opportunities and availability of resource networks (Dyer, 1994: 9–11).

In Dyer’s Model of Entrepreneurial Careers, career socialisation considers the experiences that might spark an entrepreneurial career. This area of the model encompasses factors such as early childhood experiences, work experience, education and prior start-up experiences (Dyer, 1994: 11).

The third component of Dyer's model is career orientation and is related to the role and identity development of the entrepreneur. Many entrepreneurs have traditionally not defined themselves as such, tending instead to see themselves as representatives of a professional occupation, such as the engineering profession, who happened to start a business. Therefore, there are two stages in the orientation towards an entrepreneurial career by such individuals. The first is the acceptance of a generalised entrepreneurial role, which is associated with all those who attempt to start a business. The second stage consists in the creation of a specific entrepreneurial role and is related to the reasons for starting a new venture, usually influenced by career socialisation (Dyer, 1994: 11–12).

Finally, the fourth component of Dyer's Model of Entrepreneurial Careers is career progression, which deals with the kind of roles adopted by an entrepreneur over time and is related to the complexities that entrepreneurs might experience as their venture grows. Dyer (1994: 12–16) divided these possible roles and dilemmas in early-career roles and dilemmas, mid-career roles and dilemmas and late-career dilemmas, each pertaining to three spheres: personal, family and business.

For the purposes of this piece of research, antecedents influencing career choice and career socialisation factors are of interest, as they deal with a stage of the entrepreneurial career that precedes career choice. It is noteworthy to mention that Dyer (1994: 16), after outlining his framework, calls for research into the following areas.

- The relative influence of the different antecedents on career choice and their impact on one another and on the motivation to choose an entrepreneurial career. The author stressed the importance analysing the effects of these factors on career choice individually and conjointly, and not merely individually as was previously done.
- The influence of career socialisation factors on entrepreneurial career choice.

2.15. Kolvereid (Kolvereid; Tkachev & Kolvereid)

Kolvereid investigated the career choice between being a self-employed individual and being employed in a formal organisation. He did so in two ways: i) he attempted to identify and classify the reasons behind an individual's employment status choice intentions

(Kolvereid, 1996a) and ii) he adopted the Theory of Planned Behaviour to predict employment status choice intentions (Kolvereid, 1996b; Tkachev & Kolvereid, 1999).

In his study on the reasons for people's employment status choice intentions, Kolvereid (1996a) came up with a classification scheme of these reasons. He identified eleven classes of reasons, namely: *security, economic opportunity, authority, autonomy, social environment, workload, challenge, self-realisation, participation in the whole process, avoid responsibility* and *career*, understood as career opportunity. People choosing a formal employment career mentioned security, social environment, workload, avoiding responsibility and career as their reasons, while people preferring self-employment were motivated by economic opportunity, authority, autonomy, challenge, self-realization and participation in the whole process (Kolvereid, 1996a: 28–29). Overall, security, workload and autonomy were the most significant reasons for choosing one employment status over the other.

In his latter approach regarding the investigation of employment status choice intentions, Kolvereid (Kolvereid, 1996b; Tkachev & Kolvereid, 1999) tested the predictive validity of the Theory of Planned Behaviour with regards to employment status choice intentions and found that attitudes, subjective norm and perceived behavioural control all contribute significantly to the explanation of employment status choice intentions. Moreover, he found that demographic characteristics only indirectly influence intentions through their immediate effect on attitudes, subjective norm and perceived behavioural control (Kolvereid, 1996b: 54; Tkachev & Kolvereid, 1999: 278).

2.16. South African authors

2.16.1. Urban (Shaw & Urban; Urban; Urban & Barreira; Urban & Shaw; Urban, Van Vuuren & Owen)

The South African scholar that has studied entrepreneurial career choice and, more specifically, entrepreneurial intentions most extensively is Urban.

A number of his research studies have focused on the self-efficacy construct (Urban, 2007b, 2010a, 2010b, 2012b, 2012c). In keeping with previous research, in a study on

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career preferences and entrepreneurial self-efficacy across genders, Urban (2010a) found support for entrepreneurial career choice being driven by self-efficacy.

In consonance with the focus of the present study, it is worth mentioning Urban's (2007b) investigation of the relationship between entrepreneurial empowerment, entrepreneurial self-efficacy and self-employment, where entrepreneurial empowerment is a complex construct best explained by self-efficacy (Urban, 2007b: 314–315). With the goal of explaining the factors that motivate an individual to select an entrepreneurial career (Urban, 2007b: 316) (i.e. to have entrepreneurial intentions), Urban (2007b: 323) found that all the entrepreneurial self-efficacy variables, namely opportunity recognition, innovation, management, risk taking and financial control, tested by the research instrument he adopted, positively correlate with reasons for start-up, especially opportunity recognition and risk taking (Urban, 2007b: 324). Moreover, Urban found no significant difference in the intention to start-up according to reasons given. Consequently, he concludes that entry into self-employment may be a complex decision that is also influenced by environmental conditions (Urban, 2007b: 326).

In agreement with Bandura, Urban (2010b, 2012a) also investigated the cognitive processes behind individuals' decisions and intentions. In one of his studies (Urban, 2010b), he found that entrepreneurial cognitions, best described by the concepts of willingness cognitions (the mental maps that support a person's consideration of and commitment to starting a business) and ability cognitions (the knowledge structures that individuals have to support the capabilities, skills, knowledge, norms and attitudes required to create a business venture) (Urban, 2010b: 1518), are only moderately related to motivation – best explained by the concept of self-efficacy (Urban, 2010b: 1519–1521) – to start a business venture (Urban, 2010b: 1526).

In another study, Urban (2012a) explored the relationship between metacognition and entrepreneurial intentions, where metacognition is a higher-order cognitive process that serves to organise what individuals know and recognise about themselves and their environments (Urban, 2012a: 20) and which differs from cognition, at least in part, because it is not entirely a conscious process (Urban, 2012a: 19). Urban discovered that only the metacognitive-knowledge dimension of metacognition, which can be defined as

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the extent to which one relies on what is already known about oneself, other people, tasks and strategy, when engaging in the process of generating multiple decision frameworks (Urban, 2012a: 20), is a significant predictor of entrepreneurial intentions (Urban, 2012a: 27).

For the purpose of the present study, it is worth outlining Urban's investigation of the relationship between a number of factors and entrepreneurial career choice. The factors that he examined and his findings are summarised below.

- *Culture.* Urban (2006b) examined the effect of cultural values and self-efficacy on entrepreneurial intentions and, although he verified that self-efficacy has a significant effect on entrepreneurial intentions (Urban, 2006b: 182), he found that cultural values do not have a strong and clear relationship with entrepreneurial intentions (Urban, 2006b: 182). In another study on cultural values and entrepreneurial intentions, Urban, Van Vuuren and Owen (2008) conclude that cultural values exhibit different dimensions across ethnic groups, thus making the measurement of cultural values of different ethnic groups problematic (Urban *et al.*, 2008: 7). This is consistent with the findings of another study (Urban & Shaw, 2010), which reports that people across linguistic and racial groups differ in their motives for starting a business (Urban & Shaw, 2010: 506). Finally, Urban (2007a) devised a framework depicting the relationship between cultural values, personal factors, environmental factors and entrepreneurial intentions (Urban, 2007a: 90); this framework holds that culture and beliefs act as catalysts rather than causal agents of entrepreneurial outcomes (Urban, 2007a: 91). The author, however, did not delve into the causal inferences between the variables. Consequently, the directionality of their relationships was not explored (Urban, 2007a: 82).
- *Entrepreneurship education.* Urban and Barreira (2007) investigated whether entrepreneurship education enhances engineering students' entrepreneurial intentions and found this relationship to hold good (Urban & Barreira, 2007: 578). Moreover, the authors discovered that having entrepreneurial parents, relatives or friends also contributes to a person's positive perceptions towards entrepreneurship as a career (Urban & Barreira, 2007: 578).

- *Institutional environment.* With the aim of investigating perceptions of formal and informal institutions in terms of the regulatory, normative, and cognitive categories which may influence entrepreneurial intentions, Shaw and Urban (2011) explored the relationship between the institutional environment and entrepreneurial intentions in an emerging economy. They found that positive perceptions of the favourability of the institutional environment are not significantly associated with entrepreneurial intentions (Shaw & Urban, 2011: 19).

In sum, Urban's work is situated in the entrepreneurial-intentions research stream, with a focus on the concept of self-efficacy. Urban also acknowledges the role played by personal and environmental variables on entrepreneurial career choice, although he only found support for entrepreneurial education having an effect on entrepreneurial intentions.

2.16.2. Burger, Mahadea and O'Neill (Burger, Mahadea & O'Neill; Burger, O'Neill & Mahadea; Mahadea, Ramroop & Zewotir)

Burger, Mahadea and O'Neill (2004) and Burger, O'Neill and Mahadea (2005) examined the entrepreneurial intentions of Grade-12 students in the Stellenbosch, Western Cape, South Africa, area and the factors that are possibly associated with these intentions. They found that most respondents (44%) preferred entrepreneurship to formal employment as a career option (Burger *et al.*, 2004: 194) and that 65% of them would have liked to start their own business eventually (Burger *et al.*, 2004: 199, 2005: 91).

From their exploratory research, the authors concluded that the following factors are positively associated with the choice of an entrepreneurial career:

- *perceived knowledge*, that is the individual's belief that he or she has enough knowledge about business to be able to start a profitable business (Burger *et al.*, 2004: 200, 2005: 91); and
- *informal business education*, that is the individual's learning outside of a school setting through reading, engaging with different communication media and participating in informal education programmes (Burger *et al.*, 2005: 92).

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Moreover, Burger *et al.* (2005: 93) found that perceived knowledge is enhanced through the following categories of education and training: *formal business education*, *informal business education* and *practical experience*, so that these factors can be said to impact on entrepreneurial career choice through their influence on perceived knowledge.

Finally, Mahadea, Ramroop and Zewotir (2011) carried out research among secondary school students in Pietermaritzburg, KwaZulu-Natal, South Africa, with the objective of assessing their entrepreneurial intentions and examining the socio-economic and demographic influences which motivate them to choose entrepreneurship as a career path. The authors found that 78.5% of the learners they surveyed were interested in starting their own small business in the future (Mahadea *et al.*, 2011: 72) and that the factors that positively relate to that career choice are (Mahadea *et al.*, 2011: 75):

- *perceived personal skills*, i.e. the person's belief that he or she has the necessary personal skills to run their own business;
- *role models*, i.e. having a business role model;
- *gender*; and
- *ethnic background*.

2.16.3. Nieuwenhuizen and Groenewald (Nieuwenhuizen & Groenewald; Nieuwenhuizen & Kroon; Van Vuuren & Groenewald)

Nieuwenhuizen and Kroon (2002) conducted a study in order to identify the primary factors that contribute to the success of Small and Medium Enterprises (SMEs), thereby proposing relevant subjects and curriculum content for entrepreneurship education and training programmes. However valuable this study might be, it does not fit with the focus of the present research.

In another study, Nieuwenhuizen and Groenewald (2006: 86) found that a strong relationship exists between entrepreneurs and Schein's Entrepreneurial Creativity career anchor, thus concluding that this career anchor can be used to guide people in deciding in favour of or against an entrepreneurial career (Nieuwenhuizen & Groenewald, 2006: 89). Nieuwenhuizen and Groenewald focused their research on identifying the instruments that can aid people in their career choice, rather than on the factors relating to entrepreneurial

career choice. Thus, their study is left out of the present consideration of entrepreneurial-career-choice research streams.

Finally, Van Vuuren and Groenewald (2007) investigated the factors that influence the establishment and operation of small businesses and entrepreneurial ventures. They identified four factors that influence the start-up of small businesses and entrepreneurial ventures: i) personal management and involvement, ii) role models, iii) effective time management and iv) support from partners and advisors (Van Vuuren & Groenewald, 2007: 275). The focus of van Vuuren and Groenewald's research is on the factors enabling the start-up and operation of an entrepreneurial venture when the decision to start a business has already been made. It does not focus on the early stage where different career options are considered. For this reason, their research is not included in the present literature review of entrepreneurial career choice frameworks.

2.16.4. Other South African authors

This section describes the work of South African authors that have not been mentioned in previous sections.

Rousseau and Venter (2009) explored the individual, environmental and situational factors that may relate to career choice, considered under both the aspects of initial career choice and career choice in general. They were able to identify six factors that could possibly relate to career choice (Rousseau & Venter, 2009: 10):

- individual factors: *cognitive competencies* and *interests*;
- environmental factors: *work values*; and
- situational factors: *family and friends*, *cultural influences* and *education and training*.

In terms of the relationship between these factors and career choice, only cognitive competencies and work values were found to impact significantly on initial career choice and only cognitive competencies, work values and education and training showed a statistically significant relationship with career choice in general (Rousseau & Venter, 2009: 11).

Steenekamp, Van der Merwe and Athayde (2011) conducted an investigation of secondary school students' attitude towards entrepreneurship as a career among Grade-10 learners in the Sedibeng district, Gauteng, South Africa. They also investigated the influence of entrepreneurship education at school and role models on those attitudes. They reported that 70% of respondents saw good opportunities to start their own business and 58% of students perceived entrepreneurship as a desirable career choice (Steenekamp *et al.*, 2011: 59). The authors, however, also found that exposure to entrepreneurship at school (entrepreneurship education) and having a self-employed parent or legal guardian (role models) have no significant influence on secondary school students' entrepreneurial intentions (Steenekamp *et al.*, 2011: 66).

Muofhe and Du Toit (2011) explored the differences in entrepreneurial intentions between entrepreneurship students and non-entrepreneurship students of a higher education institution in Johannesburg, Gauteng, South Africa, and investigated the relationship between entrepreneurship education and entrepreneurial intentions and between role models and entrepreneurial intentions. In their study, they devised a new entrepreneurial intentions framework (Muofhe & Du Toit, 2011: 6), starting from Ajzen's Theory of Planned Behaviour and adding some elements from Dyer's Model of Entrepreneurial Careers and Lent *et al.*'s SCCT. In this framework, entrepreneurship education influences five other factors: attitude towards entrepreneurship, social norms, role models, perceived behavioural control and self-efficacy. These, in turn, together with external economic, political and social factors, impact on entrepreneurial intentions. Nonetheless, entrepreneurship education is depicted as also having a direct effect on entrepreneurial intentions. Muofhe and Du Toit (2011: 13–14) found that entrepreneurship students exhibited a greater degree of attitude towards entrepreneurship, role model influence, self-efficacy beliefs and entrepreneurial intentions than non-entrepreneurship students. Moreover, they verified that entrepreneurship education and role models have a moderately positive relationship with entrepreneurial intentions.

Farrington, Gray and Sharp (2011: 8) identified different *work values* that individuals look for in an entrepreneurial career, as an expression of their perception of an entrepreneurial career. Their thinking stems from Ajzen's Theory of Planned Behaviour, which states that attitude toward the behaviour, in this case entrepreneurial-career-choice intentions, are

influenced by behavioural beliefs (Ajzen, 1991: 189), i.e. beliefs about the likely outcomes of the behaviour and the evaluation of these outcomes (Ajzen, 1991: 191). They found that university students and small business owners have different work values and thus exhibit different perceptions towards an entrepreneurial career (Farrington *et al.*, 2011: 9–11). In a later study, Farrington, Gray and Sharp (2012) extended their analysis of work values to gender and ethnic groups. The result was that some of the work values differ across these two dimensions (Farrington *et al.*, 2012: 15–16). Farrington *et al.*'s work fits within the present discussion on entrepreneurial career choice; however, their focus is on the factors (work values) that motivate someone to follow the career under consideration and not on the personal and environmental factors that influence career choice. Moreover, based on their findings, different work values motivate different people (students and small business owners) to embark on an entrepreneurial career, so that the work-values factor cannot be utilised as an indicator of whether an individual will choose to be an entrepreneur or not. On the contrary, work values help to understand the job components that different individuals look for in an entrepreneurial career.

Finally, Shumba and Naong (2012) conducted a study of the factors that influence career choice and aspirations among South African students, using a sample of university students from three different South African universities. They were able to identify the following factors influencing career choice and aspirations (Shumba & Naong, 2012: 173): i) the family, ii) the ability of the learner to identify his or her preferred career choice and iii) teachers, who act as role models (Shumba & Naong, 2012: 176). Shumba and Naong (2012: 173) also found that university students' career choices are decided long before the students enter university, an important fact considering the present study on the entrepreneurial career choices of secondary school students.

2.17. Placing the current study into context

From the literature review conducted above, past research on entrepreneurial career choice, can be grouped into three main research streams or conversations.

1. The psychological study of human behaviour through the concept of intentions.
2. The study of the phenomenon of career choice from a business-management and human-resource perspective, with a focus on careers.

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3. The study of entrepreneurial intentions. These are intentions applied specifically to the field of entrepreneurship and they represent the main motivating force behind the decision to start a business venture. Entrepreneurial intentions are perceived as ultimately being equivalent to the concept of entrepreneurial career choice, as the choice to start one's own business venture is a conscious and planned resolution about one's career path (Krueger *et al.*, 2000: 414). In the final analysis, research about entrepreneurial intentions is the most entrepreneurship-specific of the three research streams identified, and falls between the other two above-mentioned conversations.

Figure 2.1 provides a graphical representation of the three entrepreneurial-career-choice research streams and the place occupied by researchers' contributions over time.

Entrepreneurial-career-choice research streams

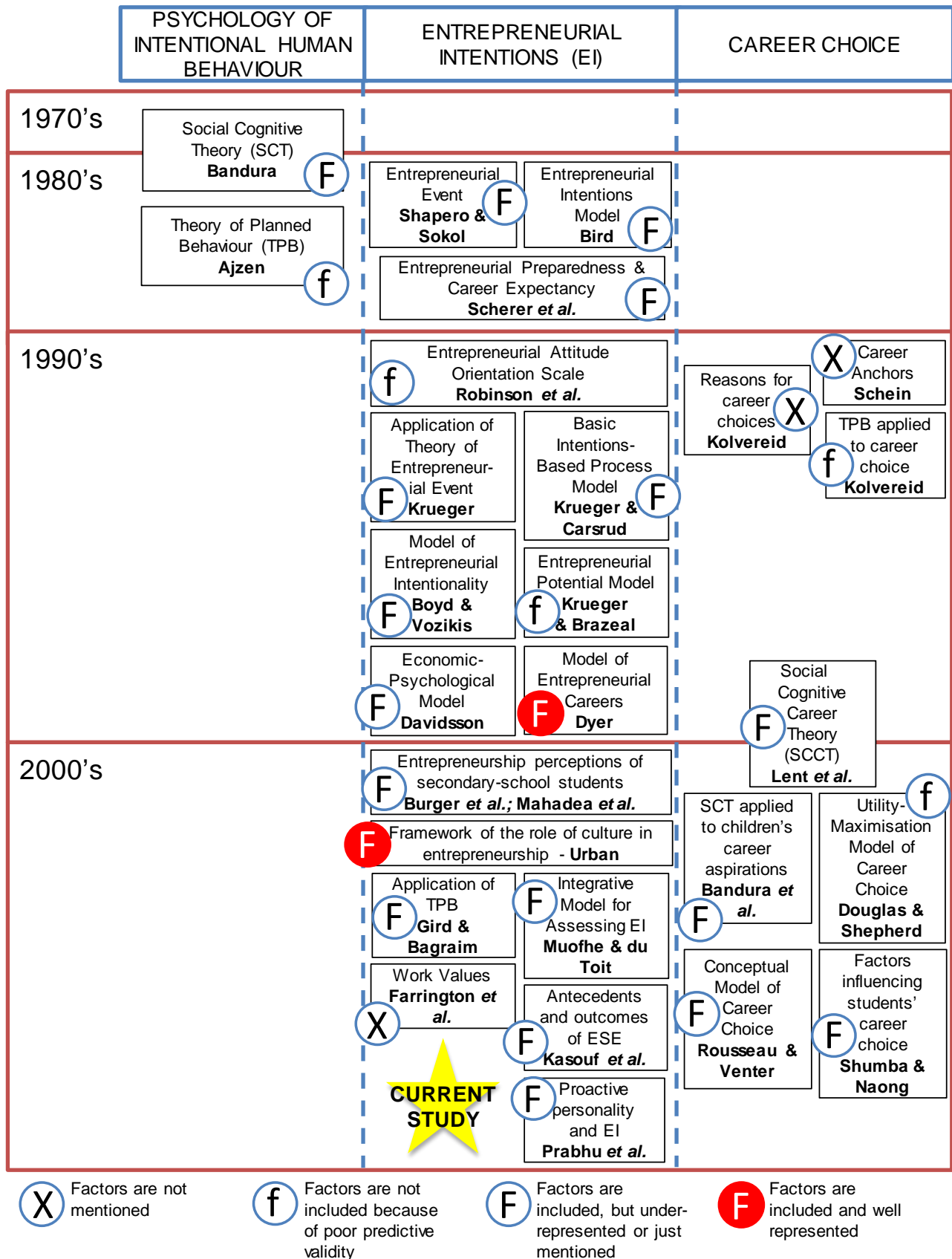


Figure 2.1: Summary of research on entrepreneurial career choice

CHAPTER 2

Entrepreneurial-career-choice research streams

As can be seen from the literature review conducted above, some robust models explaining entrepreneurial career choice and its underlying drivers exist. Most of these models identify constructs such as intentions – and their antecedents –, self-efficacy and career anchors as the variables most directly involved in an individual's determination of his or her career choice. Moreover, endogenous (personal) and exogenous (environmental) factors play a marginal role in these models, since their effect on entrepreneurial career choice is mediated through the more powerful constructs that are the crucial contribution of each of the models.

As can be seen in Figure 2.1, previous research on entrepreneurial career choice:

- rarely ignores endogenous and/or exogenous factors;
- often considers these factors but they do not feature in the theories or models developed; or
- frequently includes these factors in the theories and models developed, but does not give an exhaustive list of what these factors could be.

Consequently, to date there has been limited research on the personal and environmental factors that are related to people's entrepreneurial career choice, and even fewer studies on the factors that relate to young people's entrepreneurial career choice.

The theories and models mentioned above have outlined important constructs that immediately underlie people's entrepreneurial career choice (especially entrepreneurial intentions, self-efficacy and career anchors) and their antecedents. In their efforts to simplify the description of the variables at play in entrepreneurial career choice, however, the authors of these theories and models have underemphasised the investigation of the endogenous and exogenous factors identified to impact on the antecedents to entrepreneurial career choice, with the conviction that these factors do not influence individuals' career choice decisions directly. In other words, the thorough work conducted so far with the aim of providing concise models of entrepreneurial career choice, has lead to an oversimplification with regards to the personal and environmental factors that have been acknowledged to influence powerful determinants of entrepreneurial career choice –

such as entrepreneurial intentions, self-efficacy, and career anchors – indirectly, so that currently a comprehensive description of which factors these might be, does not exist.

The current study does not intend to discard the findings of previous research on entrepreneurial career choice and especially not on the main determinants of such decisions. Nevertheless, the research gap that it wants to address is the lack of a comprehensive classification of the personal and environmental factors impacting on what have been found to be the main determinants of entrepreneurial career choice. In fact, constructs such as entrepreneurial intentions have been proven extensively to be the main explanatory and predictive variables of entrepreneurial career choice decisions (Ajzen, 1991: 185; Davidsson, 1995: 15; Falck, Heblich & Luedemann, 2012: 53; Krueger, 1993: 5; Krueger & Brazeal, 1994: 93; Krueger & Carsrud, 1993: 315; Krueger *et al.*, 2000: 411; Sánchez, 2011: 239; Van Gelderen, Brand, Van Praag, Bodewes, Poutsma & Van Gils, 2008: 541). Moreover, entrepreneurial intentions and like constructs have been recognised to be determined by various antecedent variables, the exact determination of which depends on the model in question. At the same time, however, most of the powerful theories and models previously reviewed acknowledge the role that endogenous and exogenous factors play on the antecedents of entrepreneurial intentions and of similarly robust determinants of entrepreneurial career choice. The fact that we do not have a nomenclature of these personal and environmental factors is a gap which this research wants to address.

2.18. Conclusion

Entrepreneurial-career-choice research can be classified in three research streams: i) psychology of intentional human behaviour; ii) career choice and iii) entrepreneurial intentions. Within each research stream, few theories and models provide an exhaustive classification of the personal and environmental factors related to entrepreneurial career choice. As can be noted from Figure 2.1, the present study finds its place within the entrepreneurial-intentions research stream. More specifically, it focuses on entrepreneurial career choice, which deals primarily with entrepreneurial intentions, or the desire of starting one's own business venture and being self-employed.

CHAPTER 2

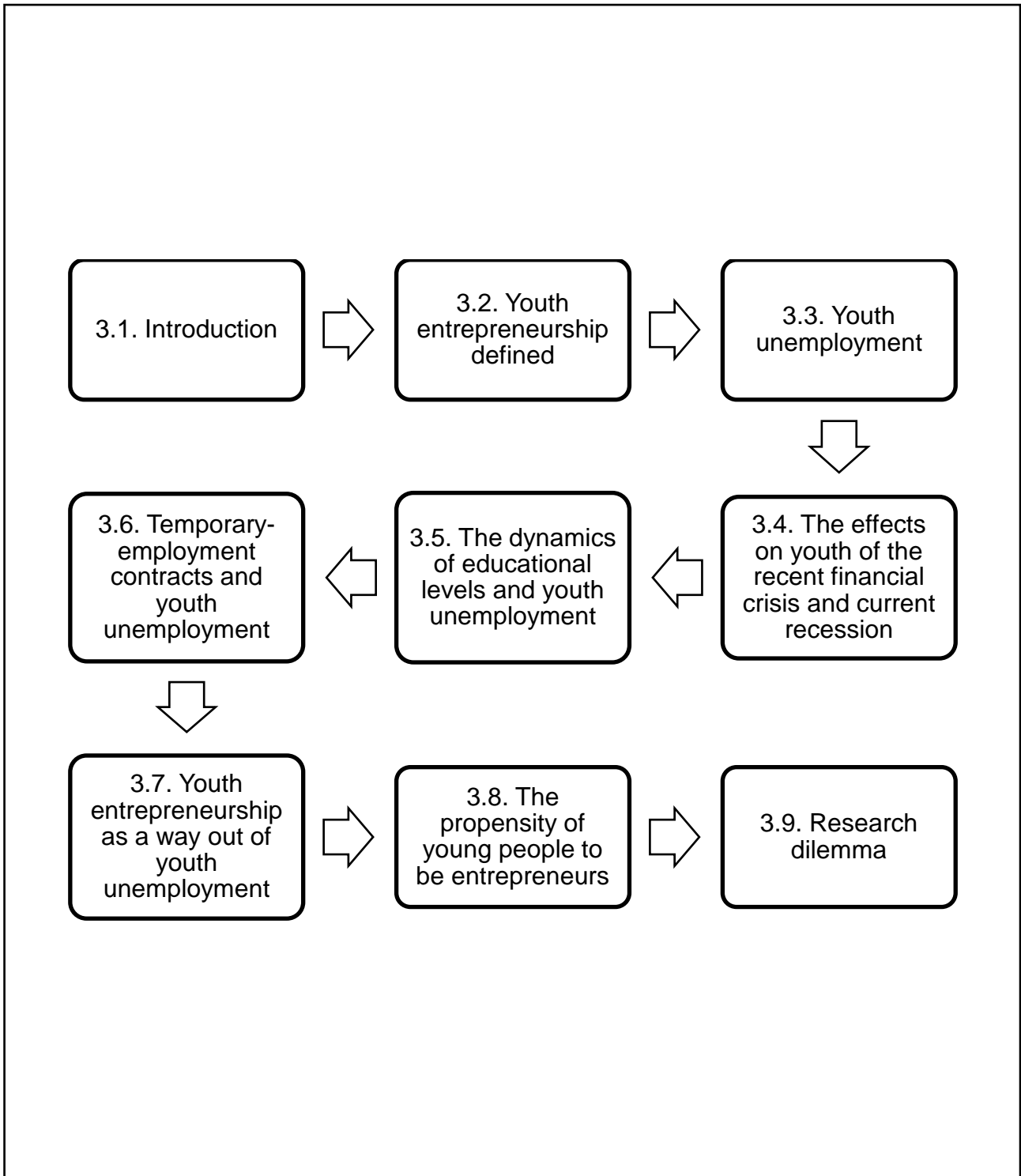
Entrepreneurial-career-choice research streams

Some of the theories and models described in this chapter have made mention of endogenous and exogenous variables (Bandura, 1977a; Bird, 1988; Boyd & Vozikis, 1994; Davidsson, 1995; Krueger & Carsrud, 1993; Lent *et al.*, 1994; Shapero & Sokol, 1982), albeit not in a comprehensive way.

Based on the results of the literature-based analysis conducted in this chapter, Chapter 4 (Paper 1) performs a critical evaluation of which theories or frameworks address the factors related to entrepreneurial career choice in a comprehensive way. Before conducting this critical analysis of the extant entrepreneurial-career-choice research, and in order to provide the context for the present study, Chapter 3 introduces the topic of youth entrepreneurship and describes its status.

CHAPTER 3:
The status of youth entrepreneurship

CHAPTER 3 LAYOUT



3.1. Introduction

Young people represent an interesting sample with respect to entrepreneurial career choice. During childhood and adolescence, people determine their career orientation and already develop an attitude towards entrepreneurship as a career (Bandura *et al.*, 2001: 202; Fatoki & Chindoga, 2012: 309; Godsey & Sebora, 2011: 85; Lent & Brown, 1996). Unfortunately, however, research on youth entrepreneurship is limited and data on youth is scarce. In particular, very little is known about the conditions of young people as they face crucial career and life decisions. The attitudes of youth towards entrepreneurship as a career option are also under-researched. This chapter aims to shed light on the topic of youth entrepreneurship by painting a clearer picture of young people and their situation, especially regarding employment, and their propensity towards entrepreneurship as a career.

Young people are the hope of a nation. The numbers of young individuals who, every year, complete their education represent the future generation of young workers, professionals and leaders who will contribute to a country's economic growth. Similarly, young people also have high expectations, although the future ahead of them may not be so bright. Youth unemployment rates have reached peak levels and are on the rise (Bell & Blanchflower, 2011; ILO, 2013), with devastating effects on a country's youth and wellbeing, including poverty and the loss of valuable skills to society (Mlatsheni & Leibbrandt, 2011: 118).

Youth entrepreneurship has been put forward as a solution to the current youth-unemployment pandemic. Although most young people are not interested in entrepreneurship as a career, the majority of young school leavers and graduates worldwide prefer employment in a formal organisation to being self-employed (Sieger *et al.*, 2011). It is crucial to understand why this is the case, as global labour markets have not been able to absorb the number of young people leaving secondary and tertiary education every year.

This chapter aims to provide a panoramic view of the present condition of young people and their development prospects. After defining youth entrepreneurship, it addresses youth unemployment levels; and the effects of the recent financial crisis on young people.

It explores how education, temporary employment and youth entrepreneurship have been proposed as possible solutions to youth unemployment and the propensity of youth to be self-employed. These aspects represent the foundations on which scholarly conversations on young people's entrepreneurial career choice can be built.

3.2. Youth entrepreneurship defined

Research on the topic of youth entrepreneurship is still relatively new. Although wide recognition is given to the potential of entrepreneurship to foster economic and social progress, few studies have focused specifically on youth. In entrepreneurship studies, young people are included in the mainstream entrepreneurial population together with adults, making entrepreneurial research that focuses on youth scarce. Detailed research and specific data on youth entrepreneurship are still limited (Schoof, 2006: 5). No clear understanding exists of how youth entrepreneurship should be promoted and fostered, as most studies in this area have focused on adult entrepreneurs and small- and medium enterprises and large corporations (Mahadea *et al.*, 2011: 68).

There is currently no agreement on one single definition of entrepreneurship (Fatoki & Chindoga, 2012: 308; Muofhe & Du Toit, 2011: 3; Steenekamp *et al.*, 2011: 49; Zhao, Seibert & Lumpkin, 2010: 388) and an analysis of entrepreneurship definitions is beyond the scope of this study. Young people are defined differently in countries and institutions worldwide. They are defined in terms of different age brackets, depending on the ages when young people leave childhood and enter adulthood, associated with economic independence. The most unambiguous approach to defining youth is to use age brackets. In Africa, where young people face many challenges in terms of gaining economic independence, youth can be as old as 35 years (Chigunta *et al.*, 2005: 2–3). Owing to the lack of consensus on the definitions of entrepreneurship and youth, there is no agreement in the literature upon a definition of youth entrepreneurship (Schoof, 2006: 7).

For the purposes of this study, entrepreneurship is understood merely as the activities performed by the entrepreneur (Wickham, 2006: 4). Young people are loosely defined as those individuals aged between the minimum school-leaving age and the age when economic independence can potentially be attained. The International Labour Office sets this upper limit at 25 years (Bell & Blanchflower, 2011: 242), whereas, in a South African

context, Turton and Herrington (2013: 64) set it at 34 years. The upper age bracket can move depending on specific country situations that dictate when young people are likely to have completed their education and become part of the labour force. As a consequence, youth are generally aged 18-25 years old, but in an African context they could be 18-34 years old. For the purpose of this research, the definition included in the African Youth Charter (African Union, 2006: 3) is adopted, whereby youth are defined as those individuals between the ages of 15 and 35. In this study, therefore, youth entrepreneurship is defined as the entrepreneurial activities performed by people between the ages of 15-35.

According to Chigunta *et al.* (2005: 25–26) young entrepreneurs, placed on a continuum, can be:

- pre-entrepreneurs - young people who have entrepreneurial intentions linked to a business idea, but still lack the financial resources, skills, knowledge and contacts to start a business;
- budding entrepreneurs - young individuals who have accumulated the necessary experience, skills, contacts and capital to start a business and are in the first stages of doing so; and
- emergent entrepreneurs - young entrepreneurs who are running and growing their business venture.

Having defined what a young entrepreneur is, it is fitting to give an indication of the global level of youth entrepreneurial activities and to understand what attitudes young people have towards entrepreneurship as a career choice. The choice of a career is affected by the career options available and by one's environment and condition. Before presenting recent information on the propensity of young people to be entrepreneurs, the rest of this chapter looks at young people's present and future condition, especially in terms of their employment scenario.

3.3. Youth unemployment

The employment horizon ahead of young people is grim. Not only is youth unemployment at record levels, but it is also on the rise. The figures in Table 3.1 provide a comprehensive picture of global youth unemployment levels.

Table 3.1: Global youth unemployment statistics

	2007	2008	2009	2010	2011	2012p	2013p	2018p
Youth unemployment rate (%)	11.5	11.7	12.7	12.5	12.3	12.4	12.6	12.8
No. of young people unemployed (millions)	69.9	70.4	75.6	74.0	72.6	72.9	73.4	-
Youth-to-adult unemployment ratio	2.9	2.9	2.7	2.8	2.8	2.8	2.7	2.7
Youth employment-to-population ratio (%)	-	44.2	43.1	42.7	42.7	42.5	42.3	41.4

p = projection

Source: ILO, *Global employment trends for youth*, 2013

The current youth-unemployment scenario seems irreversible and is currently fixed at a rate of 12.6 percent, up from 11.5 percent in 2007. It is expected to increase 12.8 percent by 2018. Global youth unemployment is estimated to affect 73.4 million youth in 2013, which is an increase of 3.5 million since 2007. Regional disparities are likely to increase, owing to an expected improvement of the youth unemployment rate in advanced economies and a worsening of this rate in developing economies (ILO, 2013: 7).

Unemployment rates have increased across the population worldwide, but there is evidence that unemployment affects young people more severely than adults (ILO, 2013: 7; Matsumoto *et al.*, 2012: 7; O'Higgins, 2010: 8; Schoof, 2006: xi). As shown in Table 3.1, the youth-to-adult-unemployment ratio has hardly changed in recent years, and stands at 2.7 in 2013. Not only are youth almost three times as likely as adults to be unemployed, but they also face rising unemployment rates. The reverse picture of this is that, at a global level, the youth employment-to-population ratio decreased from 44.2 percent in 2008 to

42.3 percent in 2013 (see Table 3.1), during a period in which global markets had been heavily hit by the financial crisis.

The consistently higher levels of youth unemployment compared to adult unemployment can be attributed to a number of reasons. In the first place, young people generally have fewer skills than adults for the job for which they are applying, leading to employers' preferring to hire adults (Choudhry, Marelli & Signorelli, 2012: 79). In addition, when employers need to lay off workers, they choose to lay off young workers first, as employment-protection laws make it more financially burdensome to fire older employees. When looking for a job, young people encounter more difficulties than adults, because they have less experience and fewer contacts to utilise. They may also be victims of an experience trap, whereby employers prefer hiring people with more experience and, thus, young people never get a chance to acquire the relevant work experience. Youth have less financial concerns than adults and their families may still offer to cover for some of their expenses, prompting them to be slack in their job-search efforts (Bell & Blanchflower, 2011: 242–243). In fact, youth unemployment rates are higher in countries where it is socially acceptable for young people to continue living with their parents for a considerable amount of time after completing their education (Bell & Blanchflower, 2011: 258). Finally, faced with few employment opportunities, young people may opt for continuing their education, thus remaining economically inactive for a longer period of time (Choudhry *et al.*, 2012: 78).

Young people have been adversely affected by unemployment, but not equally across the globe. Table 3.2 provides a breakdown of youth unemployment rates by region.

Table 3.2: Youth unemployment rates by region (%)

	2008	2009	2010	2011	2012p	2013p	2018p
World	11.7	12.7	12.5	12.3	12.4	12.6	12.8
Developed Economies and European Union	13.3	17.4	18.1	17.6	18.1	17.9	15.9
Central and South-Eastern Europe and CIS	17.0	20.4	19.3	17.9	17.9	18.0	18.0
East Asia	9.1	9.2	8.9	9.2	9.5	9.8	10.5
South-East Asia and the Pacific	14.4	14.3	13.8	13.1	13.1	13.3	14.3
South Asia	8.5	9.4	9.7	9.2	9.3	9.4	9.8
Latin America and the Caribbean	13.5	15.4	14.0	13.3	12.9	13.2	13.6
Middle East	25.3	25.5	27.4	27.7	28.3	29.1	30.0
North Africa	20.3	20.4	20.1	23.3	23.7	23.9	23.9
Sub-Saharan Africa	11.8	11.8	11.8	11.7	11.8	11.7	11.7

p = projection

Source: ILO, *Global employment trends for youth*, 2013

In advanced economies, the youth unemployment rate was 18.1 percent in 2012, the highest level reached in advanced economies over the last two decades. Little variation in the rate has been experienced since 2008. The youth unemployment rate in these economies is expected to decrease to 15.9 percent by 2018. High and increasing unemployment rates coupled with longer periods of job search, have resulted in many young people in advanced economies, giving up the search altogether and becoming discouraged. Currently, about one young individual out of every six in these countries is jobless and not in education or training. Those young people that are employed are increasingly hired in non-standard jobs, including temporary employment and part-time work (ILO, 2013: 11–12).

The picture is even bleaker in emerging economies, where the majority of the global youth population lives (Turton & Herrington, 2013: 58). In 2012 the highest youth unemployment rates were experienced by the Middle East and North Africa, with rates of 28.3 and 23.7 percent, respectively (see Table 3.2).

In Sub-Saharan Africa, youth unemployment rates are lower than in most other developing regions, but are substantially higher than adult unemployment rates. In 2012, the youth unemployment rate in this region was 11.8 percent, while the adult unemployment rate was 5.9 percent. South Africa exhibits some of the highest youth unemployment rates in Sub-Saharan Africa, with over half of young South Africans being unemployed in the first three quarters of 2012 (ILO, 2013: 20).

In Sub-Saharan Africa, the relatively low youth unemployment rate is related to the levels of poverty. Poverty forces many young people in this region to be employed in sub-standard forms of work, such as unpaid family work or own-account work, thus pushing them out of the unemployment statistics (Mlatsheni & Leibbrandt, 2011: 119). In other words, fewer young people in Sub-Saharan Africa are unemployed in relation to other parts of the world, but the type of work that they do is not of the same quality and remunerative capacity as that found in advanced economies. Sub-Saharan Africa is also characterised by a high level of skills mismatch between the better-educated and the low-skilled youth. In South Africa, for example, the unemployment rate for persons with tertiary education was 8.8 percent in 2011, compared with a rate of 29 percent for those with primary education (ILO, 2013: 21).

It is clear that the youth-unemployment situation in developing economies is more critical than in advanced economies. More young people in developing countries are employed in sub-standard forms of employment, such as work in informal enterprises, casual day labour and household production activities (Herrington *et al.*, 2010: 31; Turton & Herrington, 2013: 66). In developing countries, fewer young people complete at least secondary-level education, and only a few acquire a tertiary-level qualification (Chigunta *et al.*, 2005: 4). The young people who would otherwise be in school are instead involved in irregular forms of work; out of these, 85 percent are own-account workers and contributing family workers (ILO, 2013: 39). This is why youth unemployment rates in developing and emerging economies are on average lower than in advanced economies, leading to a greater proportion of young people being employed, albeit out of necessity and in sub-standard forms of employment. If youth unemployment rates are calculated without including those actively looking for a job, then they double in number in most emerging economies and often surpass the average rate of advanced economies (ILO, 2013: 5).

Finally, in emerging economies, young people make up the bulk of workers in the informal economy (Chigunta *et al.*, 2005: 7).

Youth unemployment has far reaching implications. Not only does it imply not having a job, and the expected income, but it also has devastating consequences for young people and for society. At the personal level, it has negative effects on individuals' wellbeing, both from a physical and psychological point of view. The lack of a job prevents young people from ensuring their sustenance and from developing their self-esteem, possibly giving rise to malnutrition and depression. It also negatively affects the employed youth, because of increased anxiety over job security (Bell & Blanchflower, 2011: 259). Youth unemployment also places young people in a vicious circle, because being unemployed raises the likelihood of being unemployed in the future. Moreover, it negatively affects the wage levels that can be expected by young people: the longer the period of unemployment, the lower will the wages of young people be when they find employment, even in the long run (Bell & Blanchflower, 2011: 260; Matsumoto *et al.*, 2012: 1; O'Higgins, 2010: 2). From a social point of view, youth unemployment disrupts the wellbeing of society. Owing to lack of employment opportunities in their communities, young people frequently move to metropolitan areas, where they face a precarious situation and lack access to basic amenities. In these areas, they are exposed to a number of hazards, such as poverty, disease, crime and drug abuse (ILO & UNESCO, 2006: 10). In fact, youth unemployment often increases the level of burglaries, theft, crime and drug offences in society, and the degree of political and social unrest, such as that experienced recently by the Middle East and North Africa (Bell & Blanchflower, 2011: 259; Matsumoto *et al.*, 2012: 1; O'Higgins, 2010: 2).

It seems that the youth-unemployment situation has reached the point of no return. Although many countries desperately require skilled labour to support their development initiatives, their labour markets are increasingly unable to absorb the number of young people who complete their education every year. At the same time, it has become more difficult for young people to meet the skill levels required by the labour market, owing to escalating educational requirements to enter waged employment (ILO & UNESCO, 2006: 16). A further factor aggravating this situation is represented by the recent financial crisis.

3.4. The effects on youth of the recent financial crisis and current recession

The devastating effects of youth unemployment on young people and society at large have been accentuated by the recent financial crisis and ensuing recession. The financial crisis that began in 2007-2008 is estimated to have triggered the worst recession since the Great Depression of the 1930's. The effects of the recent financial crisis and the recession that followed have been harder on young people, and these effects seem to be more pronounced in high-income countries (Choudhry *et al.*, 2012).

A nation's unemployment level is an indicator of the status of its economy. Conversely, economic growth is possibly the factor most responsible for the increase in job opportunities available. The recent economic recession, characterised by low or negative GDP growth and low levels of investment into national industries, has caused the demand for labour, especially youth labour, to fall drastically (Awogbenle & Iwuamadi, 2010: 832). Regions and countries that were severely hit by the financial crisis of 2007-2009 were also those in which youth unemployment rose more steeply (Matsumoto *et al.*, 2012: 3).

Young people have been put in a difficult situation by recent global economic events. During the financial crisis and the recession that followed, youth unemployment rates surged more rapidly than adult unemployment rates (Bell & Blanchflower, 2011: 246; O'Higgins, 2010: 8). Youth unemployment rates have also been steadily increasing since 1970, and in 2009 they reached peak levels. By way of example, the average youth unemployment rate in OECD countries in the 1970-1974 period was 5.1 percent, while in 2009 this figure was 20.9 percent (Bell & Blanchflower, 2011: 245–246).

Over the recession period, rising youth unemployment rates have been matched by decreasing levels of youth participation in the labour market (ILO, 2013: 82). The current recession has made investment in human capital through education more attractive, and more and more young people have enrolled for university degrees, although some of them might still be employed part-time (Bell & Blanchflower, 2011: 251).

Not only have recent global economic shocks negatively affected more young people than older people, but they have also hit young people more severely. It is true that youth unemployment rates rise more rapidly than adult unemployment rates during recessions

(Choudhry *et al.*, 2012: 87), but it is equally true that economic crises have more severe and long-lasting effects on young people than on adults. The reason may be that young people are caught in the middle of a recession during a life stage that is crucial for their development. Their life patterns and behaviours are influenced by their early career experiences, which in this case will be negative because they are unemployed (O'Higgins, 2010: 1).

Young people's employment and livelihood prospects have been affected by the recession in a number of ways. Firstly, there is evidence that people's inability to gain work experience in youth compromises their employment prospects. This is even more evident during a recession, as people who are unemployed are less likely to be considered for future jobs (Wuermli & Lundberg, 2012: 203). Secondly, it can be argued that young people entering the labour market during a recession will have lower life-time earnings than if they had entered the labour market during normal times (Bell & Blanchflower, 2011: 260). Thirdly, during recessions, young people have higher chances of ending up in lower-level occupations. In fact, if youth perceive that the economy is in recession or stagnation, they easily and rapidly lower their reservation wages and they are more willing to settle for less-than-ideal jobs that may present to arise. When young people make these compromising decisions during recession times, however, they may end up stuck in that situation for a long time (ILO, 2013: 1; Matsumoto *et al.*, 2012: 9). Finally, adults are usually more vulnerable to long-term unemployment than young people, while young people are more subject to frequent, short-term unemployment periods. During the current recession, however, young people, especially young women, have suffered from long-term unemployment: data reveal that the financial crisis has made it harder for them to find work. Adults, on the contrary, have suffered more from the recession in terms of losing their jobs (O'Higgins, 2010: 11–12).

The present challenges faced by unemployed young individuals, further exacerbated by the current recession, it is imperative to offer young people a way out of this situation. A number of solutions to youth unemployment have been put forward. The following three sections address some of these solutions and their effectiveness in dealing with the youth-unemployment issue.

3.5. The dynamics of educational levels and youth unemployment

According to a number of experts, education represents a source of protection against youth unemployment. When education contributes positively to the employability of young people, it raises the success of their job-search activities. At the same time, education is seen as lowering the employability of young people who are economically active and not in education, because these young individuals end up being considered as increasingly less skilful compared to their peers who are undergoing additional schooling (Bell & Blanchflower, 2011: 257). Consequently, the impact of education in reducing the likelihood of being unemployed is not straightforward.

A more in-depth analysis reveals that the relationship between level of education and youth unemployment changes according to countries' income levels. In high-income countries, there is a negative relationship between the length of the period of schooling and youth unemployment. In these countries, the longer young people study, the less likely they are of being unemployed in the future. In low- and middle-income countries, on the contrary, the longer the period of schooling, the higher the youth unemployment rates. This means that, in these countries, unemployed youth are relatively better educated than their employed counterparts (Matsumoto *et al.*, 2012: 8).

Low- and middle-income countries with longer average years of schooling also exhibit lower employment-to-population ratios (Matsumoto *et al.*, 2012: 8). This is explained by two facts. Firstly, longer years of schooling imply that more young people remain longer in education and out of the labour force. Secondly, young people with long years of education may be over-qualified for the labour demand present in low- and middle-income countries. Young entrepreneurs in contemporary Africa, for example, and especially in the informal sector, have higher levels of educational qualifications than in the past (Chigunta *et al.*, 2005: 22). This may be the result of the formal sector's not creating enough jobs for the number of young people completing secondary and tertiary education every year. As a consequence, these young individuals have no other option than to start a business, often in the informal sector, to make a living (Matsumoto *et al.*, 2012: 16).

If we consider the relationship between educational level and youth unemployment in a recession context, it is not clear whether or not the current recession has hit mainly the

poorly educated (Wuermli & Lundberg, 2012: 202). In the EU, Canada and United States, youth unemployment rates increased more rapidly for young people with a tertiary-education qualification, although fewer people in this group are unemployed compared with those without a tertiary-education qualification. The reason for this may be the excess supply of graduates with relatively high reservation wages. It may also be the result of young people without a tertiary-education qualification having accumulated more work experience. Young graduates would therefore be the preferred choice in terms of firing or the last to be considered in terms of hiring (Bell & Blanchflower, 2011: 252). This phenomenon is also explained by the fact that, when jobs are harder to find during a recession, better-educated young people are more easily prone to return to education (O'Higgins, 2010: 15).

Owing to the lack of consensus on the relationship between educational levels and youth unemployment, education alone does not seem to offer young people a sure defence against unemployment and its negative effects. The next section briefly addresses temporary-employment contracts, another solution that governments have tried to implement to offer young people as a way out of unemployment, especially in a recession context.

3.6. Temporary-employment contracts and youth unemployment

Many countries, especially OECD countries, have tried to compensate for the negative effects of the recession directly by introducing labour-market policies addressing young people in particular. Nevertheless, these have failed to impede the rise in youth unemployment, especially during 2008-2009, and most OECD countries still exhibit high youth unemployment levels (Bell & Blanchflower, 2011: 255). In fact, economies with strong fiscal consolidation measures have experienced rising youth unemployment rates between 2009 and 2011 to a greater extent (Matsumoto *et al.*, 2012: 5).

The facilitation of more temporary-employment contacts is a specific means that has been employed to mitigate the effects of the financial crisis on youth employment. This is testified by the fact that, for young people in the EU, Canada and the United States, temporary employment increased with respect to total employment during the recession (O'Higgins, 2010: 18). This means that young people with temporary jobs have replaced

young permanent workers during the recessionary period. At the same time, it appears that temporary-employment contracts have failed to offset the negative effects of the financial crisis on youth employment (Wuermli & Lundberg, 2012: 195). Moreover, the practice of hiring young people under temporary contracts further accentuates the differential between young and adult workers, as temporary workers do not enjoy the benefits of employment-protection legislation (O'Higgins, 2010: 22; Wuermli & Lundberg, 2012: 197).

Education and temporary-employment contracts have thus proved ineffective in protecting young people against the risk of being unemployed or in helping them to come out of a situation of unemployment. In light of this, youth entrepreneurship has been proposed as a potential, more effective, solution to the youth-unemployment issue.

3.7. Youth entrepreneurship as a way out of youth unemployment

The present section deals with the aspects in support of youth entrepreneurship as a possible solution to youth unemployment. It is important to understand why youth entrepreneurship has been viewed as a catalyst of job creation and poverty reduction and whether or not it is a viable solution worth pursuing.

Youth development and empowerment are critical factors for the creation of the human capital that young people need to be eligible for employment and progress in life. Moreover, a nation's long-term-growth potential is highly dependent on the human capital of its young people (Awogbenle & Iwuamadi, 2010: 831).

Countries that are affected by high youth unemployment levels are hindered in their economic and social progress by a lack of sufficient and skillful human resources. Better youth employment rates can translate into increased demand and tax revenue levels (Schoof, 2006: 2). It is imperative to find a solution for the youth unemployment scenario that has hit most countries, especially for underdeveloped regions such as Africa, where many young people are unemployed and struggle to gain economic and social independence (Chigunta *et al.*, 2005: 32).

CHAPTER 3

The status of youth entrepreneurship

In the face of the youth unemployment situation, and the failure of education and temporary employment to effectively aid young people not to face a condition of unemployment or to exit from it, entrepreneurship has been put forward as a possible solution. Entrepreneurship in general, and youth entrepreneurship in particular, is widely seen as a catalyst of a country's economic growth, socio-cultural progress, employment creation and poverty reduction (Fatoki & Chindoga, 2012: 308; ILO & UNESCO, 2006: 2,5; Mlatsheni & Leibbrandt, 2011: 120; Schoof & Semlali, 2008: 1–2; Schoof, 2006: xi; Thurik *et al.*, 2008: 673; World Economic Forum, 2009: 7). Entrepreneurship can offer young people greater independence, higher income potential and increased job satisfaction (ILO, 2013: 68).

Entrepreneurs have been viewed as important players in society. They are able to find innovative solutions to economic and social problems, thus boosting economic and social progress. They also create jobs in the communities where they are based, thereby uplifting the conditions of the members of those communities (ILO & UNESCO, 2006: 6–7). Embarking on an entrepreneurial career may be the response to a state of unemployment; at the same time, being self-employed reduces future chances of being unemployed (Thurik *et al.*, 2008: 673–674).

Entrepreneurship has several advantages for youth. In the first place, it creates employment for the young business owner. It also represents a means of social cohesion, in contrast with the vulnerability and social exclusion among youth caused by recessions. Young entrepreneurs are generally valued by society and feel a greater sense of meaning and belonging. Entrepreneurship as a career option gives young people who do not have a favourable social-or family background an opportunity to accomplish something worthwhile. Entrepreneurship also helps young people to develop skills and experiences that may be beneficial when facing future life challenges (Chigunta *et al.*, 2005: 13–14).

Not only does entrepreneurship have its relevance for young people, but young people also play a significant part in contributing to entrepreneurship and economic development. Many of the hopes regarding entrepreneurship and what it can do to boost a country's economy are often placed in the hands of young people. Youth-run enterprises may positively influence youth employment, as the young business owner potentially hires

people who are currently unemployed, especially unemployed young people. These enterprises also provide valuable goods and services to society, especially in local communities, and contribute to making product markets more competitive. Additionally, youth entrepreneurship may raise the level of innovation in an industry, as young people try to solve current problems creatively. There is evidence that young people are able to realize the potential that entrepreneurship has for economic growth and to be its pioneers (Chigunta *et al.*, 2005: 13–14; Schoof & Semlali, 2008: 1). Entrepreneurship has positive outcomes for the young entrepreneur and it is also a source of collective benefits for society, simply because young entrepreneurs are more likely to act as agents of change in their communities. Furthermore, it is likely that they will be sources of innovation, active in job creation, pay higher taxes, be engaged politically and be involved in the solving of social problems (Kourilsky *et al.*, 2007: 5; Viviers *et al.*, 2011: 59).

Given the bleak picture faced by most young people, many young individuals have no other option, but to create their own employment by following an entrepreneurial career path (ILO & UNESCO, 2006: 8). The kind of entrepreneurship that young people practise does, however, impact differently on economic growth and social progress. Entrepreneurship born out of necessity, as opposed to opportunity, fosters the start-up of business ventures that may be short-lived and generate few jobs (Mlatsheni & Leibbrandt, 2011: 119). Entrepreneurs driven by necessity are less likely to have growth ambitions for their business and to impact significantly on their country's level of innovation, employment creation and economic growth (Hessels, Van Gelderen & Thurik, 2008: 335). Government policies targeting necessity entrepreneurship run the risk of failing to include youth in economic activity. Policies should rather be aimed at encouraging youth to start businesses and support those businesses with a higher growth potential and to assist them in hiring more employees (Xavier *et al.*, 2013: 10).

The belief that youth entrepreneurship can serve as a possible solution to youth unemployment needs to be examined carefully for each particular situation. The impact of entrepreneurship on economic growth tends to differ for countries at different stages of economic development (Van Stel, Carree & Thurik, 2005: 313) and may be uncertain in developing countries (Schoof, 2006: 3–4).

As promising as it may look, youth entrepreneurship may not be an easy path for today's youth to follow. Young people do not always exhibit as high a level of business skills, knowledge and experience as adults, because they have not yet started or have just started operating in the labour market. They may have less savings and reduced access to finance, business networks and sources of information, which are normally accumulated over a period of time (ILO, 2013: 68; Sieger *et al.*, 2011: 31). In Sub-Saharan Africa, the most significant obstacles faced by young people in setting up their own business venture and running it successfully are limited access to finance and poor infrastructure, especially in terms of the electricity grid and its reliability (Matsumoto *et al.*, 2012: 17–18).

Youth entrepreneurship could prove an effective way to avoid being unemployed at a young age or to come out of an unemployment condition. Hopefully, entrepreneurship is seen by young people not only as a solution to unemployment or a less-desirable alternative to employment in a formal organisation, but also as a sought-after career path. The next section addresses how young people perceive entrepreneurship as a career, which is key to gauging how much effort governments and education-and-training institutions worldwide need to exert to make this career path a desirable one.

3.8. The propensity of young people to be entrepreneurs

Given that youth entrepreneurship is seen as one of the solutions to the youth-unemployment situation, understanding how young people feel about entrepreneurship as a possible career path is of vital importance.

After briefly introducing young people's propensity to embark on entrepreneurial career, this section looks into this issue in more depth. The focus has been kept on Sub-Saharan Africa because this region represents an interesting scenario. Starting from a comparison of people's entrepreneurial attitudes and activity in Sub-Saharan Africa as opposed to advanced economies, this section hones in on young people and provides an overview of young people's attitudes towards entrepreneurship as a career. It then further focuses on young people in Sub-Saharan Africa and especially young South Africans.

There is evidence that an increasing number of young people, in both advanced and emerging economies, consider entrepreneurship as a possible career option. Self-

employment is contributing more significantly to job creation worldwide. In most African countries, a considerable amount of employment exists in the form of self-employment, which contributes to increasing the level of livelihoods and economic dynamism (Chigunta *et al.*, 2005: 15).

Young people in general have positive attitudes towards entrepreneurship. In a study using an international sample of university students (Davey *et al.*, 2011), it was found that young people believe that entrepreneurship is able to make the following contributions to society: i) it promotes job creation, ii) it is crucial to an economy's competitiveness and iii) it unlocks personal potential. The African portion of the sample attributed the highest perceived contribution potential to entrepreneurship. Students from developing economies awarded more positive personality characteristics to entrepreneurs than their counterparts in developed economies. Some of the reasons urging young people in Africa to be self-employed, even in the informal sector, are lower expectations regarding the availability of formal jobs, the low wages offered by formal employment and the opportunities created by economic liberalisation (Chigunta *et al.*, 2005: 18).

Evidence shows that countries requiring economic growth the most are those where individuals are more prone to start businesses. This is an encouraging fact. In developing countries, young people are more inclined to choose entrepreneurship as a career than their peers in developed economies (Davey *et al.*, 2011: 335; Schoof, 2006: xii). Pushed into entrepreneurial careers out of necessity, they also have greater entrepreneurial experience. In the same line, it has been found that the propensity of young people to be employed by an organisation in the formal sector increases with the level of a country's GDP (Davey *et al.*, 2011: 342).

Sub-Saharan Africa is perhaps one of the regions of the world where people are most entrepreneurially inclined (Xavier *et al.*, 2013: 20). Table 3.3 summarises some key entrepreneurship-related indicators with regards to Sub-Saharan Africa and advanced economies.

Table 3.3: Summary of entrepreneurial-attitude and activity data, Sub-Saharan Africa vs. advanced economies, 2012

	Sub-Saharan Africa	Advanced Economies
Perceived business opportunities	70%	31%
Perceived capabilities	76%	36%
Pool of potential entrepreneurs	25%	39%
Entrepreneurial intentions	53%	10%
Entrepreneurship as a good career choice	76%	53%
High status to successful entrepreneurs	80%	68%
Media attention for entrepreneurship	77%	56%
Early-stage entrepreneurial activity (TEA)	28%	7%
Established business ownership	13%	7%
Discontinuation of business	16%	3%

Source: Xavier *et al.* (2013)

People in Sub-Saharan Africa have positive attitudes towards entrepreneurship as a career option. Table 3.3 shows that 70 percent of individuals in Sub-Saharan Africa perceive that there are good business opportunities in the short term ahead of them. Seventy-six percent of them also believe that they have the right skills and knowledge to seize those opportunities. These are the highest percentages worldwide (Xavier *et al.*, 2013: 22). Individuals in Sub-Saharan African countries also exhibit the highest entrepreneurial-intentions rates, with 53 percent reporting entrepreneurial intentions. In advanced economies, only ten percent of respondents displayed intentions to start a business.

In terms of entrepreneurial activity levels, Sub-Saharan African countries also score higher than advanced economies. In their study, Xavier *et al.* (2013) measured the Total Entrepreneurial Activity (TEA) rate for each country, which consists of individuals aged 18-64 who are in the first stages of starting or already run a business (Xavier *et al.*, 2013: 26). The TEA rate, thus, measures both nascent and new entrepreneurs. The highest TEA rates were found in Sub-Saharan Africa (28%), while the lowest were found in Europe, the Middle East and North Africa. This rate in advanced economies was only seven percent in

2012. In economies with low GDP per capita, however, high TEA rates are associated with necessity-driven entrepreneurship, whereas in more advanced economies TEA rates are lower, but are driven by opportunity-motivated entrepreneurship (Xavier *et al.*, 2013: 26).

When comparing TEA rates to established-business-ownership and discontinuation-of-business rates, data reveal that in Sub-Saharan Africa more businesses fail relative to the number of businesses started. A closer look at Table 3.3 shows that Sub-Saharan Africa has an established-business-ownership rate of 13 percent, but its discontinuation-of-business rate of 16 percent means that more businesses are closed rather than developed into fully-fledged businesses that exhibit growth. In advanced economies, on the contrary, the established-business-ownership rate is only seven percent, but the discontinuation-of-business rate is only three percent, meaning that more businesses are kept in existence than liquidated. Data also show that entrepreneurial ventures in advanced economies, although relatively fewer, have more job-creation potential than those in Sub-Saharan Africa, as they potentially will employ more people over the long-run (Xavier *et al.*, 2013: 32).

Focusing on young people engaged in entrepreneurial activities, the age group most represented in 2012 at a global level was 25-34 year-olds, followed by 45-44 year-olds. Together, these two groups represented almost 50 percent of all entrepreneurs. Surprisingly, Sub-Saharan Africa, together with Latin America, has a higher proportion of entrepreneurs falling into the 35-54 age bracket, with one third of nascent and new entrepreneurs belonging to this age group (Xavier *et al.*, 2013: 28–29).

More information about youth and their entrepreneurial intentions can be garnered from a survey conducted by Sieger *et al.* (2011) of 93 000 university students from 489 universities in 26 countries. This survey revealed that, right after studies, 67.8 percent of young people aim at some form of organisational employment, while only 11 percent want to be entrepreneurs. Five years after completing their studies, however, 38.2 percent plan to be employed by an organisation and 34.4 percent have entrepreneurial intentions (Sieger *et al.*, 2011: 13–14). This shows that youth worldwide are positive about following an entrepreneurial career, but not immediately after their degree, as they probably intend to raise capital and develop the necessary skills.

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Of particular interest are the dynamics of youth entrepreneurship in Sub-Saharan Africa and especially in South Africa, which is one of the most prominent countries in this area. Table 3.4 draws a comparison between Sub-Saharan African countries and South Africa in terms of youth entrepreneurship-related indicators.

Table 3.4: Summary of youth entrepreneurship indicators, Sub-Saharan Africa vs. South Africa, 2012

	Sub-Saharan Africa*	South Africa
Perceived business opportunities	64%	39%
Perceived capabilities	69%	40%
Pool of potential entrepreneurs	60%	20%
Entrepreneurial intentions	56%	15%
Entrepreneurship as a good career choice	-	77%
High status to successful entrepreneurs	-	75%
Media attention for entrepreneurship	-	75%
Early-stage entrepreneurial activity (TEA)	29%	7%
Established business ownership	8%	1%
Discontinuation of business	-	4%

*The Sub-Saharan African countries included in the survey are: Angola, Botswana, Ethiopia, Ghana, Malawi, Namibia, Nigeria, South Africa, Uganda and Zambia.

Source: Turton and Herrington (2013)

In Sub-Saharan Africa, youth are expected to represent 75 percent of the total population by 2015. In this region, young people have few or no skills that can be spent in the labour market. Those that have completed education often have skills that do not match labour-market demands. As noted previously, this situation has caused youth in Sub-Saharan Africa to be unemployed or under-employed (Turton & Herrington, 2013: 58).

Table 3.4 reveals that the pool of potential young entrepreneurs is 60 percent of youth in Sub-Saharan Africa, but it is only 20 percent in South Africa. The latter figure may be linked to South African youth's lower levels of perceived entrepreneurial capabilities, a likely outcome of the country's quality of its education system, ranked among the worst in Sub-Saharan Africa (Turton & Herrington, 2013: 62–63).

Table 3.4 also shows that young South Africans have lower entrepreneurial intentions than other young people in Sub-Saharan Africa. South Africa's TEA rate is also below the average for Sub-Saharan Africa. Lastly, South Africa also had a discontinuation-of-business rate of four percent, higher than its established-business-ownership rate, indicating that more youth-run businesses are liquidated than started. The average established-business-ownership rate for Sub-Saharan Africa is higher and stands at eight percent.

In this analysis of the propensity of young people towards entrepreneurship as a career, we have journeyed from people's entrepreneurial attitudes and activity at a global level, with a focus on Sub-Saharan Africa, all the way to the analysis of youth's propensity for entrepreneurial career in South Africa as opposed to the rest of Sub-Saharan Africa.

Data on youth entrepreneurship in South Africa is worrying but not surprising. Entrepreneurial activity and the attitudes of people aged 18-64 in South Africa follow the same patterns, even when compared with countries that are more in line with its stage of economic development, such as Argentina, Brazil, China and Russia (Turton & Herrington, 2013). Young South Africans fare better in terms of entrepreneurship when compared with other youth worldwide. However, when compared with other youth in Sub-Saharan Africa, they appear to be less entrepreneurial. The majority of young people in South Africa prefer a professional career to entrepreneurship (Herrington *et al.*, 2010: 111; Viviers *et al.*, 2011: 30), and the proportion of young South Africans that prefer an entrepreneurial career to formal employment is higher than the international average (Viviers *et al.*, 2011: 33).

At the same time, it is worrying to see that South Africa has one of the highest youth unemployment rates in the world: 48 percent in 2012 (Turton & Herrington, 2013: 66), compared to 11.8 percent in Sub-Saharan Africa (ILO, 2013: 20). The youth-entrepreneurial-intentions rate of 15 percent and the youth-TEA rate of seven percent for 2012 (see Table 3.4) are therefore disconcerting. The low rates of South African youth's entrepreneurial intentions show that young people in South Africa prefer to work for private firms or for the public sector (Fatoki & Chindoga, 2012: 311). A number of factors could be held responsible for young South Africans' low levels of entrepreneurial intentions and activity. There is evidence that entrepreneurial intentions and activity are positively related

to a country's quality of education, government policies conducive to doing business (especially in terms of hiring and firing practices) and the level of people's educational attainment. South Africa has among the lowest scores in the world in terms of these criteria (Herrington *et al.*, 2010; Turton & Herrington, 2013). A legitimate question is whether these are the only factors explaining why young South Africans are not likely to choose entrepreneurship as a career.

This situation is paradoxical. It turns out that those young individuals who have a good education are those potentially more successful in engaging in entrepreneurship, which they do not strictly need to make a living (Mlatsheni & Leibbrandt, 2011: 122). Complicating the picture is the fact that the young South Africans that want to start a business do so out of necessity, because of limited opportunities in the labour market. At the same time, however, the business ventures that they start have a low impact on the economy, as these necessity-driven enterprises lack vision. Thus, not many new firms started by young South Africans last up to five years, and fewer still develop into high-growth firms (Mlatsheni & Leibbrandt, 2011: 120).

3.9. Research dilemma

The situation of the youth worldwide is critical. Youth unemployment rates are high and on the rise. Youth entrepreneurship, one of the ways envisaged to combat youth unemployment and poverty and to promote economic growth and social progress, presents a few issues. The rates of youth entrepreneurial intentions and early-stage entrepreneurial activity are high in emerging economies, but the rate of business survival is very low. In advanced economies, on the contrary, where start-ups have the potential to grow and create a substantial number of jobs, entrepreneurial intentions and early-stage entrepreneurial activity are characterised by low rates. In other words, in the world regions where entrepreneurship counts, youth are not likely to start businesses.

One of the worst cases is South Africa. In this country, the rates of youth entrepreneurial intentions, early stage entrepreneurial activity and established business ownership are very low and the discontinuation-of-business rate for young people is relatively high. Stated differently, in South Africa, young people are not interested in starting businesses and following an entrepreneurial career path. When they do however, their businesses do

not survive long after start-up. These are distressing facts, given that the youth unemployment rate in South Africa was 48 percent in 2012.

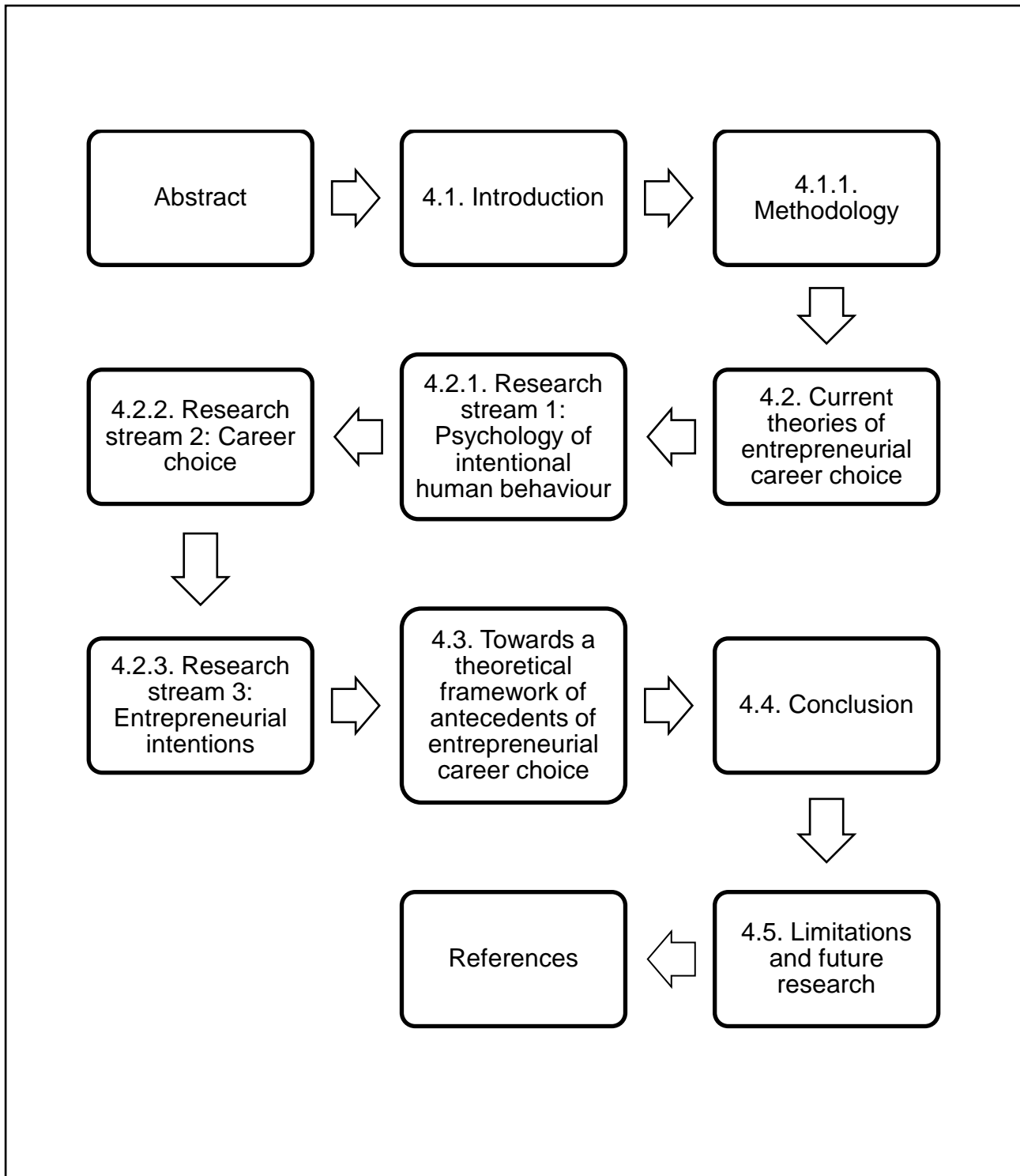
It is crucial to understand what factors motivate young people to choose entrepreneurship as a career. In an effort to foster entrepreneurial activity in a country, it is important to know which personal and environmental factors require nurturing so that young people especially, are motivated to start their own businesses.

Young people represent an important focus in the study of entrepreneurship and of how to increase a country's entrepreneurial level. In fact, the ideal stage to acquire knowledge about entrepreneurship and a positive attitude towards it is during childhood and adolescence (Fatoki & Chindoga, 2012: 309). Studies conducted so far have not been able to identify the individual, societal, family- and education-related factors that enhance young people's intention to found their own company (Sieger *et al.*, 2011: 5).

The theoretical and empirical investigation of the personal and environmental factors – the antecedents – of entrepreneurial career choice occupies the rest of the present study, and is organised in four independent papers.

CHAPTER 4:
Antecedents of entrepreneurial career choice:
A critical theoretical review and future research agenda

CHAPTER 4 LAYOUT



CHAPTER 4

Paper 1

This chapter was submitted as an original manuscript.

Title: Antecedents of entrepreneurial career choice: A critical theoretical review and future research agenda

Journal: Entrepreneurship Theory and Practice

Authors: Bignotti, A. & Le Roux, I.

Submission date: 2013-10-01

Status: Under review

**Antecedents of entrepreneurial career choice:
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Abstract

Research has widely overlooked the antecedents of entrepreneurial career choice, conceived as the personal and environmental factors influencing entrepreneurial-career-choice decisions. This paper conducts an extensive literature review of entrepreneurial-career-choice theories in search of a theory that explains antecedents exhaustively. It identifies three research streams – i) psychology of intentional human behaviour; ii) career choice; and iii) entrepreneurial intentions – and places existing theories into one of the streams. The paper then proposes a comprehensive theoretical framework of antecedents, which represents a starting point for building a theory of antecedents.

Keywords: entrepreneurial career choice; antecedents; framework.

4.1. Introduction

Young people worldwide face a grim future when it comes to finding employment. Without many job opportunities available, their transition to adulthood and economic independence is threatened. For decades, and especially since the recent financial crisis has hit global markets, youth unemployment rates have been on the rise (Bell & Blanchflower, 2011: 245). The global youth unemployment rate in 2012 was recorded at above twelve per cent and is estimated to affect more than seventy million young individuals in 2013. There is evidence that financial crises and recessions negatively impact on youth employment for as long as five years after they cease (Choudhry *et al.*, 2012: 86). Moreover, youth unemployment rates have been consistently about three times as high as adult unemployment rates (ILO, 2013: 7).

To counter the devastating effects of youth unemployment, entrepreneurship has been put forward as a possible way out of unemployment. In fact, governments worldwide believe in the potential of entrepreneurship, and especially youth entrepreneurship, to drive economic development, social progress and poverty reduction (ILO & UNESCO, 2006: 5; Mlatsheni & Leibbrandt, 2011: 120; Thurik *et al.*, 2008: 673; World Economic Forum, 2009: 7). Youth entrepreneurship is positioned as a contributing factor to job creation and is becoming increasingly relevant, especially since the global labour markets are not able to absorb the numbers of youth who, every year, complete their education (ILO & UNESCO, 2006: 16).

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Yet, international surveys have shown that the youth prefer employment in a formal organisation to being self-employed (Sieger *et al.*, 2011: 13). Young people may be influenced in their career choices by a white-collar mentality present in many countries, and it has been found that the propensity to choose formal employment over an entrepreneurial career increases with the level of a country's GDP (Davey *et al.*, 2011: 342).

This situation is puzzling and one might ask why young people are reluctant to choose an entrepreneurial career if formal jobs are difficult to find and chances of facing unemployment are so high. The confidence placed in youth entrepreneurship by governments worldwide is unfounded, given that young people do not appear to be interested in entrepreneurial careers. To address this paradox, the factors influencing the choice of an entrepreneurial career need to be understood. The research question guiding this paper is: *What are the existing theories and frameworks that explain entrepreneurial career choice and the factors influencing this choice?*

Existing research has thus far identified and focused on some powerful predictors of entrepreneurial behaviour or entrepreneurial career choice. For example, entrepreneurial intentions (Ajzen, 1991; Bird, 1988; Shapero & Sokol, 1982), self-efficacy (Bandura, 1977a; Boyd & Vozikis, 1994; Krueger *et al.*, 2000) and career anchors (Schein, 1993) have been investigated extensively and shown to predict entrepreneurial behaviour accurately. Nevertheless, studies focusing on these powerful predictors treat entrepreneurial career choice as a static phenomenon, offering at best only a snapshot of something that is much more complex. In other words, these studies state that people who display these predictors in their behaviour are those more likely to choose an entrepreneurial career. This has been the dominant approach for a number of years and only varies in the samples and contexts of investigation. But what exactly triggers these predictors, given that they are not innate characteristics or predispositions? Ultimately, little is known about the antecedent factors, personal and environmental, relating to entrepreneurial career choice. There is consensus in the literature on entrepreneurial career choice that intentions are the best predictor of human behaviour and, thus, of entrepreneurial career choice (for example: Ajzen, 1991; Krueger, 1993; Van Gelderen *et al.*, 2008). But what *exactly* influences these intentions? There is a need to describe these

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factors in detail, so that governments and education-and-training institutions worldwide become aware of what they can do to influence young people to choose an entrepreneurial career.

The aim of this paper is to identify the antecedents of entrepreneurial career choice. The goal is to clarify which personal and environmental factors are associated with the choice of an entrepreneurial career.

In entrepreneurial-career-choice literature, different variables have been assigned the name “factors” (Do Paço, Ferreira, Raposo, Rodrigues & Dinis, 2011; Guerrero, Rialp & Urbano, 2008; Koe, Sa’ari, Majid & Ismail, 2012; Zhao *et al.*, 2010) or “antecedents” (Ajzen, 2011; Fayolle, Gailly & Lassas-Clerc, 2006; Kickul, Wilson, Marlino & Barbosa, 2008; Krueger, 2007; Liñán & Chen, 2009). In different theories and frameworks, factors and antecedents have occupied different places in the chain of variables influencing entrepreneurial career choice. In this paper, antecedents are defined as the personal and environmental factors that first activate the chain of influence on entrepreneurial career choice. In line with this, there may be other variables that moderate the effect of antecedents on entrepreneurial career choice, so that the influence of antecedents may be indirect. However, in this paper the interest is in antecedents, or the “primitive” variables affecting entrepreneurial career choice, and not on moderating variables.

Firstly, this paper synthesises previous work on entrepreneurial career choice in clearly-defined research streams. In the analysis of entrepreneurial career choice, a plethora of theories and frameworks spanning the psychological, behavioural and career-choice fields exists. The studies underlying such theories and frameworks have often been conducted in isolation, so that a unified and comprehensive picture of the research findings on entrepreneurial career choice and related factors is currently not available. Secondly, it evaluates how extensively each theory or framework of entrepreneurial career choice covers the antecedents. Based on this evaluation, a framework is proposed as a starting point to open the black box of the antecedents of entrepreneurial career choice.

This paper makes three contributions. Firstly, by providing a map of entrepreneurial-career-choice research streams, it will help scholars in this field to identify more easily

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which scholarly conversation (Huff, 1999) they want to join. Secondly, by identifying a comprehensive framework of antecedents of entrepreneurial career choice, it paves the way for the analysis of personal and environmental factors relating to this choice. Thirdly, a comprehensive framework can guide governments and education-and-training institutions worldwide in their interventions to foster youth entrepreneurship.

To achieve the aims outlined above, this paper performs an extensive and in-depth literature review of the most relevant theories and frameworks of entrepreneurial career choice and related factors. This paper also attempts to situate such theories and frameworks in specific research streams and judge how comprehensively they cover the antecedents of entrepreneurial career choice. The unit of investigation of this study is, therefore, the factors relating to entrepreneurial career choice.

Taking into account the number of years the topic of entrepreneurial career choice has already been investigated, the research underlying this paper is conducted based on the assumption that, with the passing of time, there is an increasing level of agreement on the factors that are related to entrepreneurial career choice, and that a clear and comprehensive framework of entrepreneurial career choice can be derived.

4.1.1. *Methodology*

The above-mentioned extensive literature review was conducted through a search of the extant knowledge on entrepreneurial career choice.

Firstly, a search was done through the major online databases for the entrepreneurship and business-management disciplines: EBSCOhost, ProQuest, Emerald, Google Scholar and Sabinet. In the event that the full-text article or source was not available, other databases were used, such as Science Direct, Sage Premier, Springer Link, Taylor & Francis and Wiley Online. In addition, to obtain some seminal works pertaining to this study, the University of Pretoria library catalogue was searched. The literature search was performed utilising the following keywords and their combinations in the title field, and the following limiting criteria, when mentioned: “career” and “choice” and “entrepreneur”; “career” and “choice” and “entrepreneurial”; “career” and “choice” and “aspirations”; “career” and “choice” and “perceptions”; “career” and “choice” and “attitudes”; “youth” and

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“entrepreneurial career”; “youth” and “career” and “aspirations”; “youth” and “career” and “perceptions”; “youth” and “career” and “attitudes”; “youth” and “entrepreneurship” and “attitudes”; “youth” and “entrepreneurship” and “perceptions”; “youth” and “entrepreneur” and “attitudes”; “youth” and “entrepreneur” and “perceptions”; “youth entrepreneurship” from 2007 to 2013; “youth” and “entrepreneurial intentions” from 2007 to 2013.

Of the many results that this search produced, 135 items were deemed to pertain to the topic of entrepreneurial career choice and related factors. This also includes the works of the authors that were most frequently cited in the reference lists of the sources that were found. Including frequently cited authors was a means of ensuring foundational works in the field of entrepreneurial career choice were taken into account. Of these sources, a-hundred-and-eighteen were scholarly journal articles, seven were books, two were chapters in books, three were theses and five were conference papers.

Secondly, the retrieved sources were screened for relevance. Sixteen sources were considered irrelevant. Consequently, 119 sources – a-hundred-and-three scholarly journal articles, seven books, two chapters in books, three theses and four conference papers – were read in-depth to study the theory or framework of entrepreneurial career choice described and to identify the antecedents of entrepreneurial career choice put forward. Each source was content analysed, with the focus on understanding: i) the theory or framework therein included and how it explains the phenomenon of entrepreneurial career choice; ii) in which entrepreneurial-career-choice research stream the theory or framework can be situated; and iii) which antecedents the theory or framework deems responsible for influencing entrepreneurial career choice.

4.2. Current theories of entrepreneurial career choice

Starting from the extensive literature review underlying this paper, the research was able to identify three research streams under which entrepreneurial-career-choice theories and frameworks can be grouped.

1. Psychology of intentional human behaviour: the study of human behaviour, especially through the concept of intentions.
2. Career choice: the study of the phenomenon of career choice from a business-management and human-resource perspective, with a focus on careers. In this

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research stream, career choice is typically portrayed as a choice between entrepreneurship as opposed to other career fields.

3. Entrepreneurial intentions: the study of intentions applied specifically to the field of entrepreneurship and representing the main motivating force behind the decision to start a business venture. Research about entrepreneurial intentions is the most entrepreneurship-specific of the three research streams identified and falls between the other previous two conversations. In this research stream, the focus is exclusively on the drivers of entrepreneurial career choice, so that other career fields are not investigated.

What follows is an in-depth review of the three research streams that provides an evaluation of how comprehensively each theory or framework covers the antecedents of entrepreneurial career choice.

4.2.1. *Research stream 1: Psychology of intentional human behaviour*

In the course of the literature review conducted, it became apparent that a good number of more contemporary studies on entrepreneurial career choice rely on the work done by Bandura and Ajzen in the psychology field. These authors have contributed established theories and frameworks for the analysis of human behaviour from a psychological point of view. Therefore, in this paper they have been placed separately in the psychology research stream.

The concept around which Bandura's and Ajzen's theories revolve is that of *intentions*. Later works by the same or different authors have built on these theories and frameworks, based on the view that entrepreneurial career choice is ultimately an aspect of human behaviour involving well-planned decisions. It is worth describing the seminal works in this research stream, as they provide the foundation for the development of theories and frameworks in other fields.

Bandura is one of the first and most prominent psychologists studying human behaviour in the 20th century. He first elaborated the Social Learning Theory, according to which human behaviour is explained by both personal and environmental variables and individuals model their actions based on what they have learned through the observation of other

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people's behaviour (Bandura, 1977b: 22).

Bandura later developed this theory into the Social Cognitive Theory (Bandura, 1986), which provides a more sophisticated explanation of human behaviour. In particular, this theory introduces the concept of *self-efficacy*, which Bandura defines as the strength of people's convictions in their own effectiveness in executing the behaviour required to achieve certain outcomes (Bandura, 1977b: 79). This concept is the very core of the Social Cognitive Theory (Bandura *et al.*, 2001: 187; Bandura, 2001: 10) and has been extensively used by other authors attempting to explain human behaviour. According to Bandura (1977a: 193), the motivation behind carrying out a certain action can be traced back to self-efficacy.

Certain factors can trigger self-efficacy (Bandura, 1977a: 195–200, 1977b: 80–83): i) performance accomplishments, whereby the individual's self-efficacy is reinforced by his or her successful performance in a certain behaviour; ii) vicarious experience, which strengthens self-efficacy by the person's observation of other people succeeding in the same task; iii) verbal persuasion, whereby others persuade the individual that he or she is able to cope successfully with a particular situation; and iv) emotional arousal, which is a character-based variable related to how an individual deals with an emotionally-challenging situation.

For self-efficacy to be enacted, the right incentives and skills also need to be present in the individual (Bandura, 1977a: 194). In addition, a person's level of self-efficacy depends on the situation and task at hand: in certain situations and confronted with certain tasks, people may or may not feel capable of accomplishing the task (Bandura, 1977b: 83). Finally, Bandura (1977a: 200–201) states that self-efficacy is influenced by personal cognitive processes that are at play when someone analyses a situation or filters information about him- or herself and the environment.

There have been several applications of self-efficacy to different populations and contexts. To name a few, Bandura (1997: 212–524) has applied the Social Cognitive Theory to various psycho-social fields and Bandura *et al.* (2001) applied the concept of self-efficacy to children's career choices. Krumboltz and Mitchell (1976) and Betz and Hackett (1981,

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1986) utilised self-efficacy in a career-choice context. In these studies, self-efficacy proved to be predictive of people's career interests and choices. Bandura (2012) has also recently addressed the definition of the functional properties of self-efficacy, in order to answer some claims that self-efficacy has debilitating or negligible effects.

To summarise, Bandura gives credit to the influence exerted on behaviour by personal and environmental factors, but only includes performance accomplishments, vicarious experience, verbal persuasion and emotional arousal in his theory.

Ajzen is another psychologist who produced seminal work in the study of human behaviour. He focused his psychological analysis of human behaviour on the connection between actions and intentions. According to the author, human action follows, either explicitly or implicitly, well-formulated plans. In other words, actions are guided by intentions (Ajzen, 1985: 11).

The theory that has made Ajzen famous is the Theory of Planned Behaviour (Ajzen, 1991). According to this theory, actions are determined by *intentions*, which represent an indication of how hard people will try to perform an action. Intentions, in their turn, are influenced by three variables: i) attitude towards the behaviour; ii) subjective norm; and iii) perceived behavioural control (Ajzen, 1991: 188). *Attitude towards the behaviour* refers to how a person feels about the behaviour at hand. *Subjective norm* is the perceived social pressure to perform or not to perform the behaviour in question. Finally, *perceived behavioural control* refers to people's perception of the ease or difficulty of performing the behaviour of interest, a concept very similar to self-efficacy (Ajzen, 1991: 184). Each of these variables is, in turn, influenced by beliefs, which are personal views about the behaviour at hand, about how society values the behaviour and about the perceived control over the behaviour. These are believed to be the ultimate drivers of a person's intentions and actions. Ajzen's theory has been widely used to explain human behaviour. At the same time, it has given rise to a few criticisms, which Ajzen (2011) declared unfounded, because they were based on different theoretical stances.

Ajzen's chain of determinants of human action stops with beliefs, and no mention is made of how these beliefs can be influenced so as to change a person's intentions and

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behaviour. Moreover, Ajzen (1985: 34–36) states that perceived behavioural control is made up, among other things, by the degree of control over internal and external factors, but he does not specify what these factors are. Finally, Ajzen (1985: 24–29) admits that behaviour may be influenced by internal and external variables that are not fully under the person's control, such as individual differences across people, skills and abilities, will-power, emotions, time and opportunity, and dependence on others. Nonetheless, he did not investigate their influence on human behaviour and thus did not include them in his model.

4.2.1.1. *Summary of research stream 1*

Both Bandura's Social Cognitive Theory and Ajzen's Theory of Planned Behaviour are widely-cited models and are utilised, as we shall see, in other research fields. These two theories establish that self-efficacy and intentions are powerful predictors of human behaviour. While both authors allude to the influence exerted by antecedents in the chain of influence on intentions, only Bandura includes these in his model. Nevertheless, in his theory Bandura does not devote much attention to antecedents understood as personal and environmental factors and his main research contribution is the concept of self-efficacy.

4.2.2. *Research stream 2: Career choice*

This research stream is composed of theories and frameworks that analyse entrepreneurial career choice from the point of view of mere career choice, of which entrepreneurship is one of the options and is typically set against the choice of formal employment.

Perhaps the most important seminal work in this research stream is Schein's (1993) theory of Career Anchors. He developed this theory in an attempt to relate people's orientation towards work, motives, values and self-perceived talents with career choice.

Schein (1993: 21–24) states that as the person goes through education, work and various experiences, and as the career evolves, he or she develops a self-concept that includes: i) talents, or the perception of one's own strengths and weaknesses; ii) motives, or the awareness of what needs and goals are deemed most important by the individual; and iii)

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values, or the awareness of what is most important to the person. These three elements combine to give rise to a dominant theme in the interface between the individual and different careers. This is the “anchor”, or the element in a person’s self-concept that he or she will not compromise (Schein, 1993: 24). This career anchor is a dominant driver in career selection and is something the person will not give up in his or her choice of career.

Schein (1993: 26–51) came up with eight career anchors, ranging from Technical/Functional Competence and General Managerial Competence to Pure Challenge and Lifestyle. It is worthwhile mentioning the Entrepreneurial Creativity Career Anchor, which characterises people who make career decisions based on their overriding need to create new businesses by developing new products and services or by taking over or turning around existing businesses. This is the career anchor most pertinent to entrepreneurial career choice.

Schein’s Career Anchors have been used to guide people in their career-choice decisions (Nieuwenhuizen & Groenewald, 2006) and have been regarded as one of the most robust career-choice theories (Barclay *et al.*, 2013). Nonetheless, this theory has been criticised with regard to its internal reliability (Leong *et al.*, 2013) and some of its underlying assumptions (Bezuidenhout *et al.*, 2013).

Schein does not mention explicitly the role of personal and environmental factors on career anchors and thus on career choice. Since career anchors, however, are subjectively developed based on one’s experiences and on how individuals see themselves in terms of talents, motives and values, it can be inferred that they play some role in the crystallisation of individuals’ career anchors. Nonetheless, Schein has not explored these antecedents in his research.

In this research stream, Bandura *et al.* (2001) applied the Social Cognitive Theory in a career-choice setting by using the self-efficacy construct to study children’s career choices. From the perspective of the antecedents of entrepreneurial career choice, they found that the family has an influence, although indirect, on career choice, especially in terms of the family’s socio-economic status and of parents’ aspirations for their children.

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Lent, Brown and Hackett (Lent & Brown, 1996; Lent *et al.*, 1994, 2000) imported Bandura's Social Cognitive Theory into the career choice arena and devised the Social Cognitive Career Theory (SCCT). This theory encompasses a number of personal, contextual and behavioural variables, and describes how career interests are formed and career decisions taken. Through their SCCT, Lent and his colleagues have added the following important considerations to the research on antecedents. They envisage three sets of factors influencing career interest and career choice, of which two represent an addition to what Bandura already contributed in his Social Cognitive Theory: i) socio-demographic factors; and ii) environmental factors (Lent *et al.*, 2010: 244). Socio-demographic factors include variables such as gender, race/ethnicity and culture. Environmental factors can be social supports and barriers. These two sets of factors impact on self-efficacy and outcome expectations, which in turn influence career interests (Lent *et al.*, 2010: 244).

Concerning the personal and environmental factors that may influence career decisions, these are theoretically included in the SCCT. However, as Lent *et al.* (2000) themselves point out, there is a need to test the relationship between these factors and career choice. Moreover, across their studies, Lent and his colleagues differ on the exact factors that are included under socio-economic and environmental factors, so that their theory does not provide a precise indication of what antecedents fall under these groupings.

Drawing from Ajzen's work, Kolvereid utilised the Theory of Planned Behaviour to predict career-choice intentions (Kolvereid, 1996b; Tkachev & Kolvereid, 1999) and confirmed the predictive validity of this theory with regard to career-choice intentions. He also verified that personal factors such as family background, gender and prior self-employment experience affect intentions exclusively through their influence on attitude towards the behaviour, subjective norm and perceived behavioural control (Kolvereid, 1996b: 54). Nevertheless, Tkachev and Kolvereid (1999: 278) postulate that demographic characteristics may have an influence on the relationship between intentions and actions. In another study, Kolvereid (1996a) attempted to identify and classify the reasons behind an individual's career-choice intentions; however, this study was not concerned with antecedents.

Douglas and Shepherd (2000, 2002) developed and tested a Utility-Maximisation Model of

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Career Choice. In so doing, they took an entirely new approach to the study of career choice. In their model, career decisions are driven by utility maximisation in the decision to be either employed or self-employed, which is a function of the following career-related factors (Douglas & Shepherd, 2000: 249): i) income; ii) attitudes to work effort; iii) attitudes to risk; iv) attitudes to independence; and v) other working conditions (such as both the benefits and irksome elements of the job). Testing the model, the authors observed that individuals only take into account income, risk and independence when considering different career paths, and that entrepreneurial intentions are stronger for those with positive attitudes toward risk and independence (Douglas & Shepherd, 2002: 87). In Douglas and Shepherd's model, personal and environmental factors do not appear. Nevertheless, the authors admit that personal and situational background factors exert an influence on entrepreneurial career choice through their influence on the attitude-intentions-behaviour chain of influence (Douglas & Shepherd, 2000: 233).

Rousseau and Venter focused more on antecedents and explored the individual, environmental and situational factors that may be related to career choice. They postulated the existence of six factors (Rousseau & Venter, 2009: 10), grouped in three categories: i) individual factors: *cognitive competencies* and *interests*; ii) environmental factors: *work values*; and iii) situational factors: *family and friends*, *cultural influences* and *education and training*. After testing this framework, only cognitive competencies and work values were found to impact significantly on initial career choice, and only cognitive competencies, work values, and education and training showed a statistically significant relationship with career choice in general (Rousseau & Venter, 2009: 11). As defined by Rousseau and Venter (2009: 3), cognitive competencies are the intellectual abilities or mental operations employed in tasks such as career choice. This study represents a good attempt at identifying the antecedents of entrepreneurial career choice. Nonetheless, for the purposes of this paper, the list of antecedents is rather limited and is composed of only cognitive competencies and education and training. Work values are not considered antecedents, as they are characteristics of the job under consideration, and not of the person or environment.

Finally, Shumba and Naong (2012) conducted a study of the factors that influence career choice and career aspirations among South African students. They identified the following

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factors (Shumba & Naong, 2012: 173): i) the family; ii) the ability of the learner to identify his or her preferred career choice; and iii) teachers, who act as role models. Although the authors' research focus was in line with the investigation of the antecedents of entrepreneurial career choice, the number of factors identified is small.

4.2.2.1. Summary of research stream 2

In this research stream, authors have undertaken the study of career choice, typically, although not exclusively, seen as a choice between a career in a formal organisation or in entrepreneurship. Authors in this research stream have expanded on theories from the psychology field – specifically, Bandura's Social Cognitive Theory and Ajzen's Theory of Planned Behaviour – or introduced new theories or frameworks. Compared to the research stream of psychology of intentional human behaviour, this research stream puts forward antecedents that are more properly personal and environmental factors, such as gender, ethnicity, education and training, family and role models. Yet, only a few authors include specific personal or environmental factors in their theoretical contributions and, in any case, provide a fairly limited list of what the antecedents of career choice might be.

4.2.3. Research stream 3: Entrepreneurial intentions

Research on entrepreneurial intentions falls between the two previous research streams. Most studies in this area see entrepreneurial career choice as a planned action and, thus, view this phenomenon through the lens of entrepreneurial intentions. Authors in this research stream focus on the factors driving the choice of an entrepreneurial career exclusively. Alternative careers are not studied in this research stream: the entrepreneurial career is assumed to be the one chosen and the focus is on the motivators behind this exclusive choice.

Shapero and Sokol (1982) developed one of the most cited models of entrepreneurial intentions: the Theory of the Entrepreneurial Event. In an attempt to understand how an entrepreneurial career is chosen, Shapero and Sokol (1982: 82–87) originated the concepts of *perceptions of desirability* and *perceptions of feasibility*. The first deals with how desirable it is to start a business, whereas the second is related to the actual feasibility of setting up a business venture. These concepts are both products of cultural and social environments and help to understand which actions are likely to be seriously

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contemplated and then executed. More concretely, perceptions of desirability are influenced by a person's value system, shaped by factors such as the family, peers, previous work experience, ethnic group, classmates, colleagues and mentors. Perceptions of feasibility, conversely, are determined by factors such as financial support, skills training, mentors, partners, the business area considered and the existence of proven business models in that business field. A third concept introduced by Shapero and Sokol to explain the choice of an entrepreneurial career is *propensity to act*, a stable personality characteristic which disposes an individual to act upon his or her decisions.

From the point of view of antecedents, Shapero and Sokol acknowledge the role played by a considerable number of personal and environmental factors on perceptions of desirability and perceptions of feasibility. Nonetheless, the core of the Theory of the Entrepreneurial Event is occupied by the constructs of perceptions of desirability, perceptions of feasibility and propensity to act.

Bird (1988, 1989) also made an important contribution to this research stream. She devised the Entrepreneurial Intentions Model and is one of the first authors to utilise the term "entrepreneurial intentions", which she defines as the personal orientation towards choosing a career in entrepreneurship rather than a career in a formal organisation (Bird, 1988: 442). In a nutshell, the Entrepreneurial Intentions Model attributes the formation of entrepreneurial intentions to two dimensions (Bird, 1989: 8). The first is *location*, or whether or not the individual's entrepreneurial intentions come from within or from outside forces, such as stakeholders and the market. The second dimension is the prospective entrepreneur's *rationality versus intuition* in his or her psychological processes, or the way that he or she organises thoughts when making a decision.

Bird identifies antecedents to the person's rational and intuitive thinking during the formulation of entrepreneurial intentions and states that they are personal and social in nature (Bird, 1988: 443). The personal factors comprise: i) personal history, such as having prior experience as an entrepreneur; ii) personality characteristics, which include need for achievement and locus of control; and iii) abilities, such as the ability to promote ideas. The social factors encompass i) social, ii) political, and iii) economic variables, such as displacement, changes in markets and government deregulation of industries. Although

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credit is given to antecedents in this model under the headings of “personal factors” and “social factors”, the author limits herself to giving a general idea of what these factors might be.

Later, Boyd and Vozikis (1994) developed Bird’s Entrepreneurial Intentions Model further to include the self-efficacy construct. Their Model of Entrepreneurial Intentionality integrates all the elements of Bird’s model and Bandura’s self-efficacy concept without altering these elements or concepts. As a consequence, Boyd and Vozikis’ model does not add more clarity to the investigation of the antecedents of entrepreneurial career choice.

Building on Bandura’s work in psychology, Scherer, Adams, Carley, *et al.* (1989) attempted to investigate how entrepreneurial role models affect entrepreneurial career choice in the context of Bandura’s Social Learning Theory. Scherer and colleagues view entrepreneurial career preference as a multi-dimensional phenomenon composed of two dimensions: *entrepreneurial preparedness* and *entrepreneurial career expectancy* (Scherer, Adams, Carley, *et al.*, 1989: 65). The former encompasses self-efficacy, as well as education and training aspirations related to preparing for an entrepreneurial career (Scherer, Adams, Carley, *et al.*, 1989: 56). The second dimension of entrepreneurial career preference equates with the individual’s estimate of the likelihood that an entrepreneurial career will be sought (Scherer, Adams, Carley, *et al.*, 1989: 66). These two dimensions are either reinforced or weakened by the presence of parental entrepreneurial role models through the process of social learning.

It is worth mentioning that in a parallel version of this model (which was not tested), Scherer, Adams and Wiebe (1989) envisaged personal traits such as *achievement*, *personal control*, *innovation* and *risk taking* as mediating the effect of the individual’s cognitive evaluations on entrepreneurial career preference through social learning. To summarise, Scherer and colleagues recognise the influence exerted by antecedents on entrepreneurial career choice. These, however, do not constitute the core of their research contributions.

Other authors have worked on self-efficacy in an entrepreneurship context, otherwise called “entrepreneurial self-efficacy” (ESE), and have attempted to find antecedents that are related to entrepreneurial career choice through the mediation of the entrepreneurial-

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self-efficacy construct. For instance, Kasouf *et al.* (2013) have built a conceptual framework where: i) experience, conceived as composed of human capital (personal skills) and social capital (a person's network of relationships), influences ESE; ii) explanatory style, that is the person's attitude in cognitive processes, ranging from optimistic to pessimistic, moderates the relationship between experience and ESE; and iii) alternative opportunities, which entail the opportunity cost of other career options available, moderate the impact of ESE on entrepreneurial career choice. Hence, according to Kasouf *et al.* (2013), experience and explanatory style are antecedents of entrepreneurial career choice. Additionally, Prabhu *et al.* (2012) found that a proactive personality influences entrepreneurial intentions through the mediating and moderating role of ESE.

Steering away from self-efficacy, Robinson *et al.* (1991: 13) support the use of attitude theory for the prediction of entrepreneurial action. They thus situate their work in line with Ajzen and the scholars utilising the Theory of Planned Behaviour in an entrepreneurial-intentions context, who see attitude towards the behaviour as one of the determinants of entrepreneurial intentions. Robinson *et al.* (1991) make a new contribution by devising the Entrepreneurial Attitude Orientation Scale, an instrument that helps to predict entrepreneurial behaviour by measuring certain attitudes. Robinson *et al.* (1991: 18) believe that people may change their attitudes towards a certain action over time and that such attitudes are formed in an interactive relationship with the environment. Nonetheless, the authors never delved into the investigation of what environmental factors may exert an influence on attitude, so that other scholars cannot rely on their contribution to get a better understanding of antecedents.

A scholar who worked extensively on Shapero and Sokol's and Ajzen's model is Krueger. Krueger shares the view that personal and environmental factors exert an influence on entrepreneurial intentions through their effect on attitudes (Krueger, 1993: 18; Krueger & Carsrud, 1993: 315; Krueger *et al.*, 2000: 414). The Basic Intentions-Based Process Model envisioned by Krueger and Carsrud (1993: 317) depicts exogenous factors affecting attitudes toward the behaviour in question. These successively influence intentions towards the behaviour, which are the main determinants of behaviour. The authors, however, do not specify which antecedents are included under exogenous factors. In another study, Krueger (1993) investigated the effect of prior entrepreneurial exposure on

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entrepreneurial intentions using Shapero and Sokol's Theory of the Entrepreneurial Event. He found that prior entrepreneurial exposure impacts on entrepreneurial intentions through its influence on perceptions of desirability and perceptions of feasibility.

Krueger's main theoretical contribution is perhaps his integration of Shapero and Sokol's and Ajzen's models. Krueger and Brazeal (1994) brought together and further expanded upon the Theory of the Entrepreneurial Event and the Theory of Planned Behaviour by devising the Entrepreneurial Potential Model. The authors believe that Ajzen's and Shapero and Sokol's models overlap considerably and they identify the following drivers of entrepreneurial intentions (Krueger & Brazeal, 1994): i) perceived desirability, which incorporates Ajzen's attitude towards the behaviour and subjective norm; ii) perceived feasibility, equal to Ajzen's perceived behavioural control, which conceptually coincides with Bandura's self-efficacy; and iii) propensity to act. A novelty in this model is the concept of entrepreneurial *potential*, which is the extent to which a person is able to take advantage of the conditions to become an entrepreneur. In their final version of the Entrepreneurial Potential Model, Krueger *et al.* (2000: 419) incorporate entrepreneurial potential into the construct of propensity to act on the notion that an individual may have the potential to start a business and yet not intend to do so. Shapero and Sokol's concept of *displacement* or *precipitating event* is another factor triggering the translation of entrepreneurial potential into entrepreneurial intentions (Krueger & Brazeal, 1994: 94).

Going back to the discussion on antecedents, it is clear that Krueger and his colleagues acknowledge the indirect role that personal and environmental factors have on entrepreneurial intentions. Nevertheless, in only one study does Krueger (1993) hone in on one antecedent: prior entrepreneurial exposure.

Davidsson (1995) brought together the psychological and career-choice approaches to entrepreneurial career choice in his Economic-Psychological Model of the factors influencing entrepreneurial intentions. In Davidsson's view, current employment status affects intentions, because the start-up intention can either be a reaction to or evolution from the current employment status or can develop from the individual's experience of the job currently held. Moreover, personal background factors impact indirectly on entrepreneurial intentions and encompass the following factors: gender, vicarious

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experience, education, radical-change experience and age (Davidsson, 1995: 5). Davidsson provides an indication of what personal and environmental factors are at play in the determination of entrepreneurial intentions, but he offers a rather limited list of these factors.

The South African scholar that has studied entrepreneurial career choice and, more specifically, entrepreneurial intentions most extensively is Urban. A number of his research studies have focused on the self-efficacy construct (Urban, 2007b, 2010a, 2010b, 2012b, 2012c). Although Urban's studies on entrepreneurial career choice and its antecedents are several, the most significant contribution in this regard is his framework for understanding the role of culture in entrepreneurship (Urban, 2007a: 91). This framework depicts the relationship between cultural values, personal factors, environmental factors and entrepreneurial intentions. The author, however, did not examine the directionality of the relationships between the variables of this framework (Urban, 2007a: 82).

Burger *et al.* (2004, 2005) examined the entrepreneurial intentions of secondary-school students and the factors that are possibly associated with these intentions. The authors concluded that the following factors are positively associated with the choice of an entrepreneurial career: i) *perceived knowledge*, that is people's conviction that they have enough knowledge about business to be able to start a profitable business (Burger *et al.*, 2004: 200, 2005: 91); and ii) *informal business education*, that is people's learning outside of a school setting through reading, engaging with different communication media and participating in informal education programmes (Burger *et al.*, 2005: 92). Burger *et al.* (2005: 93) also found that perceived knowledge is enhanced through the following categories of education and training: *formal business education*, *informal business education* and *practical experience*, so that these factors can be said to impact on entrepreneurial career choice through their influence on perceived knowledge.

Mahadea *et al.* (2011) investigated the entrepreneurial intentions of secondary-school students and the socio-economic and demographic influences that motivate them to choose entrepreneurship as a career path. The authors found that the factors that are positively related to that career choice are (Mahadea *et al.*, 2011: 75): i) *perceived personal skills* – people's belief that they have the necessary personal skills to run their

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own business; ii) *role models* – having a business role model; iii) *gender*, and iv) *ethnic background*.

Burger *et al.* and Mahadea *et al.* provide a good indication of the possible antecedents of entrepreneurial career choice, many of which fall under the education and experience umbrellas. Nonetheless, they do not offer the most comprehensive classification found in the literature.

In another study, Gird and Bagraim (2008) applied to the Theory of Planned Behaviour to predict university students' entrepreneurial intentions. They found that prior exposure to entrepreneurship influences entrepreneurial intentions through its impact on the determinants of intentions introduced by the Theory of Planned Behaviour, namely, attitude towards the behaviour, subjective norm and perceived behavioural control.

Muofhe and Du Toit (2011) investigated how university entrepreneurship and non-entrepreneurship students differ in terms of their entrepreneurial intentions and explored the relationship between entrepreneurial intentions and two factors: entrepreneurship education and role models. In their study, they devised a new entrepreneurial-intentions framework (Muofhe & Du Toit, 2011), starting from Ajzen's Theory of Planned Behaviour and adding some elements from Dyer's Model of Entrepreneurial Careers and Lent *et al.*'s SCCT. In this framework, entrepreneurship education influences five other factors: attitude towards entrepreneurship, social norms, role models, perceived behavioural control and self-efficacy (Muofhe & Du Toit, 2011). These, in turn, together with external economic, political and social factors, impact on entrepreneurial intentions. Entrepreneurship education is depicted as also having a direct effect on entrepreneurial intentions. Although Muofhe and Du Toit's framework gives an indication of antecedents, the authors do not offer an exhaustive list of personal and environmental factors and have not delved into the external economic, political and social factors.

Farrington *et al.* (2011) studied entrepreneurial career choice from the point of view of the different *work values* that individuals look for in an entrepreneurial career. They found that university students and small business owners have different work values and thus exhibit different perceptions towards an entrepreneurial career (Farrington *et al.*, 2011: 9). In a

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later study, Farrington *et al.* (2012) extended their analysis to gender and ethnic groups and concluded that some of the work values differ across these two dimensions. However valuable Farrington *et al.*'s work is, it has a different focus from this paper, as work values are characteristics of the job under consideration, and not personal and environmental factors related to entrepreneurial career choice.

To end this discussion, this paper presents the theoretical contribution of Dyer, an author often cited in the entrepreneurial-career-choice literature. His Model of Entrepreneurial Careers identifies four major areas under which different factors playing a role in entrepreneurial careers are grouped (Dyer, 1994: 9): i) antecedents influencing career choice; ii) career socialisation; iii) career orientation; and iv) career progression.

Antecedents influencing career choice include individual factors, social factors and economic factors (Dyer, 1994: 9). Recognising the role that individual factors play in the choice of an entrepreneurial career, Dyer includes under *individual factors* constructs such as need for achievement, need for control, tolerance of ambiguity and entrepreneurial attitudes. The second antecedent influencing career choice is *social factors*, which encompass family relationships, family support, community support and role models. The third and final antecedent influencing career choice is represented by *economic factors*, which include elements such as lack of alternative careers in existing organisations, economic growth/business opportunities and availability of resource networks (Dyer, 1994: 10).

In Dyer's model, career socialisation considers the experiences that might spark an entrepreneurial career. This area of the model encompasses factors such as *early childhood experiences, work experience, education and prior start-up experiences* (Dyer, 1994: 11).

The third component of Dyer's model is career orientation and is related to the role and identity development of the entrepreneur. Finally, the fourth component of Dyer's Model of Entrepreneurial Careers is career progression, which deals with the kinds of roles entrepreneurs assume over time and is related to the challenges that entrepreneurs might experience as their venture grows (Dyer, 1994: 11).

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For the purposes of this paper, antecedents influencing career choice and career-socialisation factors are of interest, as they deal with a stage of the entrepreneurial career that precedes career choice. It is worth mentioning that Dyer (1994: 16), after outlining his framework, calls for research into the following areas: i) the relative influence of the different antecedents on career-choice decisions and how they influence each other to motivate someone to opt for an entrepreneurial career; and ii) the influence of career socialisation factors on entrepreneurial career choice.

Dyer's Model of Entrepreneurial Careers represents a comprehensive framework of antecedents, encompassing a total of fifteen factors. A drawback of this model is that, although often cited in the entrepreneurial-career-choice literature, it was never challenged.

4.2.3.1. Summary of research stream 3.

This research stream hones in on entrepreneurial career choice specifically, either drawing from the psychologists Bandura and Ajzen, or devising new theories and frameworks. The main determinant of entrepreneurial career choice in this research stream equates with the construct of entrepreneurial intentions, an evolution of the intentions concept utilised in psychology. This research stream offers a few comprehensive frameworks or models of antecedents of entrepreneurial career choice, such as Shapero and Sokol's (1982) Entrepreneurial Event Model, Urban's (2007a) framework for understanding the role of culture in entrepreneurship and Dyer's (1994) Model of Entrepreneurial Careers. These will be discussed in the following section.

4.3. Towards a theoretical framework of antecedents of entrepreneurial career choice

Based on the above discussion, it is apparent that, for the most part, the three theoretical streams of entrepreneurial-career-choice research do not offer an exhaustive list of the antecedents of entrepreneurial career choice. On the contrary, the focus of entrepreneurial-career-choice research has been mainly on a number of powerful predictors of entrepreneurial career choice. These predictors are complex constructs and are not innate to the individual. Constructs such as entrepreneurial intentions, self-efficacy and career anchors are elements in a person's behaviour that encourage entrepreneurial

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career choice. What is not known is how these powerful predictors are triggered. In other words, it is not clear which personal and environmental factors contribute to unleashing these predictors of entrepreneurial career choice in an individual.

Table 4.1 summarises the results of the task of grouping theories and frameworks of entrepreneurial career choice in clearly-defined research streams and the evaluation of how comprehensively each theory or framework covers antecedents. The results have been summarised in such a way that the following information is reported in Table 4.1:

- i. research stream identified, under which various research contributions fall;
- ii. name of the theory or framework;
- iii. antecedent coverage, or the extent to which the theory or framework covers the spectrum of antecedents of entrepreneurial career choice, where: “0” indicates that antecedents are not considered in the theory or framework; “1” indicates that antecedents are given some importance, but they are not included because of their poor predictive validity with respect to entrepreneurial career choice; “2” indicates that antecedents are included, but they are under-represented or just mentioned in the theory or framework; and “3” indicates that antecedents are included and well represented;
- iv. the antecedents included in the theory or framework; and
- v. the author(s) who produced the relevant theory or framework.

Table 4.1: Summary of results of literature review

Theory/Framework	Ante- dent coverage	Antecedents included	Author(s)
<i>Research stream: Psychology of intentional human behaviour</i>			
Social Cognitive Theory (SCT)	2	1. Performance accomplishments 2. Vicarious experience 3. Verbal persuasion 4. Emotional arousal 5. Cognition	(Bandura, 1977a, 1977b, 1986, 2012)
Theory of Planned Behaviour (TPB)	1	n.a.	(Ajzen, 1985, 1991, 2011)
<i>Research stream: Career choice</i>			
Career Anchors	0	n.a.	(Schein, 1993)

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Theory/Framework	Antecedent coverage	Antecedents included	Author(s)
SCT applied to children's career aspirations	2	<ol style="list-style-type: none"> 1. Familial socio-economic status 2. Parents' aspirations for their children 	(Bandura <i>et al.</i> , 2001)
Social Cognitive Career Theory	2	<ol style="list-style-type: none"> 1. Predispositions 2. Gender 3. Race/ethnicity 4. Disability/health status 5. Context 6. Learning experiences 	(Lent & Brown, 1996; Lent <i>et al.</i> , 1994, 2000, 2010)
Reasons for career choices	0	n.a.	(Kolvereid, 1996a)
TPB applied to career choice	1	n.a.	(Kolvereid, 1996b; Tkachev & Kolvereid, 1999)
Utility-Maximisation Model of Career Choice	1	n.a.	(Douglas & Shepherd, 2000, 2002)
Conceptual Model of Career Choice	2	<ol style="list-style-type: none"> 1. Cognitive competencies 2. Education and training 	(Rousseau & Venter, 2009)
Factors influencing students' career choice	2	<ol style="list-style-type: none"> 1. Family 2. Ability to identify professional career 3. Role models 	(Shumba & Naong, 2012)
Research stream: <i>Entrepreneurial intentions</i>			
Entrepreneurial Event	2	<ol style="list-style-type: none"> 1. Family 2. Peers 3. Work experience 4. Ethnic group 5. Mentors 6. Financial support 7. Skills training 8. Business area considered 9. Role models 10. Partners 	(Shapero & Sokol, 1982)
Entrepreneurial Intentions Model	2	<ol style="list-style-type: none"> 1. Personal history: prior entrepreneurial experience 2. Personality characteristics: need for achievement, locus of control 3. Abilities: ability to promote ideas 4. Social, political and economic variables: displacement, changes in markets and government deregulation of industries 	(Bird, 1988, 1989)
Model of Entrepreneurial Intentionality	2	(Same antecedents as Bird's Entrepreneurial Intentions Model)	(Boyd & Vozikis, 1994)

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Theory/Framework	Antecedent coverage	Antecedents included	Author(s)
Entrepreneurial Preparedness & Career Expectancy	2	<ol style="list-style-type: none"> 1. Parental entrepreneurial role models 2. Education and training aspirations 3. Need for achievement 4. Locus of control 5. Innovation 6. Risk taking 	(Scherer, Adams, Carley, <i>et al.</i> , 1989; Scherer, Adams & Wiebe, 1989)
Antecedents and outcomes of ESE	2	<ol style="list-style-type: none"> 1. Experience 2. Explanatory style 	(Kasouf <i>et al.</i> , 2013)
Proactive personality and entrepreneurial intent	2	<ol style="list-style-type: none"> 1. Proactive personality 	(Prabhu <i>et al.</i> , 2012)
Entrepreneurial Attitude Orientation Scale	1	n.a.	(Robinson <i>et al.</i> , 1991)
Basic Intentions-Based Process Model	2	<ol style="list-style-type: none"> 1. Exogenous forces 	(Krueger & Carsrud, 1993)
(Applied the Theory of the Entrepreneurial Event)	2	<ol style="list-style-type: none"> 1. Prior entrepreneurial exposure 	(Krueger, 1993)
Entrepreneurial Potential Model	1	n.a.	(Krueger & Brazeal, 1994; Krueger <i>et al.</i> , 2000)
Economic-Psychological Model	2	<ol style="list-style-type: none"> 1. Current employment status 2. Gender 3. Vicarious experience 4. Education 5. Radical-change experience 6. Age 	(Davidsson, 1995)
Framework for understanding the role of culture in entrepreneurship	3	<ol style="list-style-type: none"> 1. Need for achievement 2. Need for autonomy 3. Risk taking 4. Locus of control 5. Business regulation 6. Infrastructure 7. Education-and-training co-operative institutions 8. Government policies and support structures 9. Political and macroeconomic stability 10. Culture 	(Urban, 2007a)
Entrepreneurship perceptions of secondary school students	2	<ol style="list-style-type: none"> 1. Perceived knowledge 2. Formal business education 3. Informal business education 4. Practical experience 	(Burger <i>et al.</i> , 2004, 2005)
Entrepreneurship perceptions of secondary school students	2	<ol style="list-style-type: none"> 1. Perceived personal skills 2. Role models 3. Gender 4. Ethnic background 	(Mahadea <i>et al.</i> , 2011)

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Theory/Framework	Antecedent coverage	Antecedents included	Author(s)
(Applied the TPB)	2	1. Prior exposure to entrepreneurship	(Gird & Bagraim, 2008)
Integrative Model for Assessing Entrepreneurial Intentions	2	1. Entrepreneurship education 2. Social norms 3. Role models 4. External economic, political and social factors	(Muofhe & Du Toit, 2011)
Work Values	0	n.a.	(Farrington <i>et al.</i> , 2011, 2012)
Model of Entrepreneurial Careers	3	1. Need for achievement 2. Need for control 3. Tolerance for ambiguity 4. Entrepreneurial attitudes 5. Family relationships 6. Family support 7. Community support 8. Role models 9. Lack of alternative careers in existing organisations 10. Economic growth/business opportunities 11. Availability of resource networks 12. Early childhood experiences 13. Work experience 14. Education 15. Prior start-up experiences	(Dyer, 1994)

From the above analysis, it can be observed that two frameworks provide the most exhaustive classification of antecedents of entrepreneurial career choice: Urban's (2007a) framework for understanding the role of culture in entrepreneurship and Dyer's (1994) Model of Entrepreneurial Careers. Shapero and Sokol's (1982) Entrepreneurial Event Model also displays a comprehensive list of antecedents (see Table 4.1). Nevertheless, these factors are just examples provided by the authors of the forces that might affect perceptions of desirability and perceptions of feasibility. The focus of Shapero and Sokol's model still rests on perceptions of desirability, perceptions of feasibility and propensity to act.

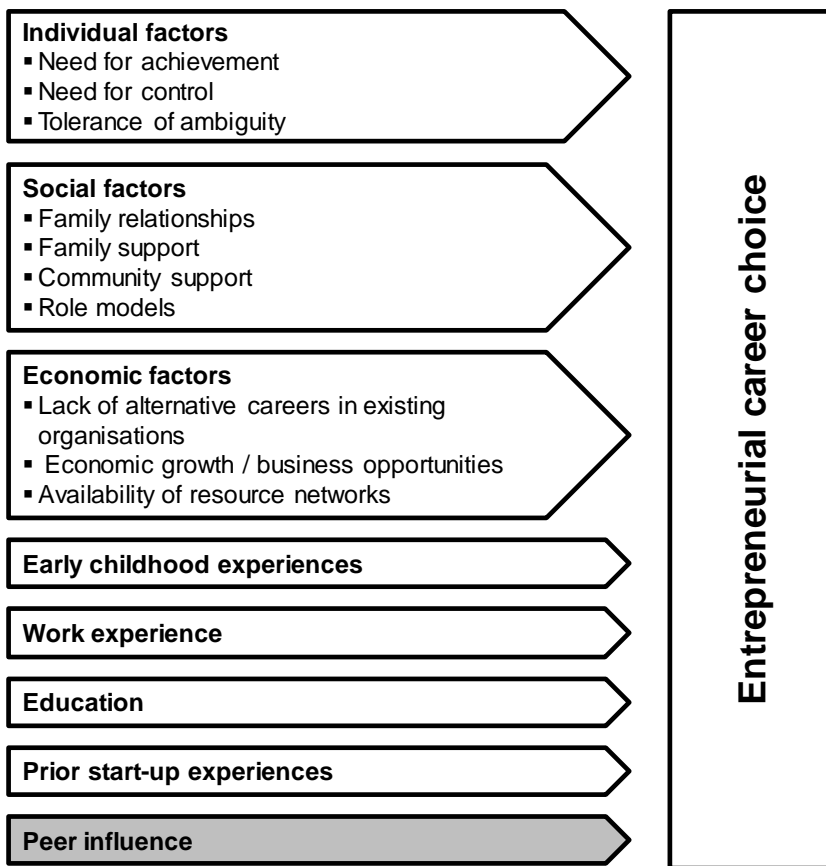
The present research suggests that Dyer's model offers the most comprehensive list of personal and environmental factors relating to entrepreneurial career choice, for the following three reasons. Firstly, compared with the factors in Urban's framework, those included in Dyer's Model of Entrepreneurial Careers reflect a wider spectrum of dynamics

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in the relationship between antecedents and entrepreneurial career choice. In fact, Urban's antecedents are an expansion of three main categories of factors: i) cultural values; ii) personality factors; and iii) environmental factors (Urban, 2007a). On the contrary, Dyer's antecedents fall under more influence categories: i) individual factors; ii) social factors; iii) economic factors; iv) early childhood experiences; v) work experience; vi) education; and vii) prior start-up experiences (Dyer, 1994). Secondly, based on the analysis of the three research streams identified and the results presented in Table 4.1, it can be said that Dyer's antecedents represent the overall range of antecedents mentioned in other theories or frameworks by other authors; the only exceptions being biographical characteristics, such as gender, race/ethnicity and age, and skills such as innovation and risk taking. The antecedents not included in Dyer's Model of Entrepreneurial Careers feature in other frameworks only occasionally. Thirdly, and finally, among the theories and frameworks identified and analysed, Dyer's model provides the most exhaustive list of antecedents of entrepreneurial career choice, with fifteen personal and environmental factors appearing in the framework.

Hence, the present analysis reveals that Dyer's Model of Entrepreneurial Careers covers the antecedents of entrepreneurial career choice exhaustively. Consequently, this paper adopts it as a comprehensive framework of personal and environmental factors relating to entrepreneurial career choice. The part of Dyer's model that applies to entrepreneurial career choice and that is adopted in this paper is illustrated in Figure 4.1.

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Source: adapted from Dyer (1994)

Figure 4.1: Proposed framework of antecedents of entrepreneurial career choice

As mentioned earlier, Dyer's Model of Entrepreneurial Careers covers different stages in the development of an entrepreneurial career. For the purposes of the present paper, only the stages *antecedents influencing career choice* and *career socialisation* are of interest, because they deal with a period when the individual is still in the process of choosing a specific career path. Accordingly, only the factors that fall under these two stages are presented in Figure 4.1.

Based on the in-depth analysis of the theories and frameworks of entrepreneurial career choice available in the literature, two adaptations were made to Dyer's model, reflected in Figure 4.1. In the first place, the individual factor *entrepreneurial attitudes* was not considered. As discussed in the present analysis, and according to this paper's definition of antecedents, attitudes are not antecedents of entrepreneurial career choice; rather, they are mediators. In other words, attitudes are found to influence entrepreneurial career choice, but they are the outcome of other forces. Secondly, the antecedent *peer influence*

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was introduced in the proposed framework. In fact, based on the antecedents presented by other theories and frameworks (see Table 4.1) and the fact that the present analysis was originated from a youth-related dilemma, the present research regards this factor as exerting a considerable influence on people's entrepreneurial career choice. Research on the association between peer influence and entrepreneurial career choice is limited. Nonetheless, some studies have produced results in support of this relationship (Bönte, Falck & Heblich, 2009; Falck *et al.*, 2012; Nanda & Sørensen, 2010). Accordingly, it is assumed that this antecedent can be safely added to the proposed framework.

4.4. Conclusion

It is disconcerting to notice that the majority of young people worldwide prefer employment in a formal organisation as opposed to embarking on an entrepreneurial career, given that youth unemployment rates are both high and on the rise. Notwithstanding governments' efforts to promote entrepreneurship as a career among the youth, youth entrepreneurship rates are below expectations. It is thus paramount to identify on the personal and contextual levels the factors that may encourage individuals to select entrepreneurship as a career.

This paper set out to identify in the literature of entrepreneurial career choice an available framework of antecedents of entrepreneurial career choice. Such a framework can guide governments and education-and-training institutions worldwide in their efforts to identify the personal and environmental factors that trigger entrepreneurial career choice.

This literature-review and theory-building effort led to the following contributions. In the first place, this paper conducted an extensive and in-depth literature review and placed research on entrepreneurial career choice into three, clearly-defined research streams: i) psychology of intentional human behaviour; ii) career choice; and iii) and entrepreneurial intentions. By virtue of this classification of previous research, it is hoped that scholars will now be better able to understand which scholarly conversation they wish to follow in the broad field of entrepreneurial-career-choice research.

Secondly, this paper performed an evaluation of how comprehensively each theory or framework of entrepreneurial career choice covers antecedents. It was found that most of

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entrepreneurial-career-choice research has thus far focused on some powerful predictors of people's entrepreneurial career choice and has largely ignored the personal and environmental factors relating to that choice. It was concluded that Dyer's Model of Entrepreneurial Careers represents the most complete framework of antecedents and, thus, constitutes a valuable starting point in the effort to build a theory of antecedents of entrepreneurial career choice.

Thirdly, departing from Dyer's Model of Entrepreneurial careers, a framework of antecedents of entrepreneurial career choice has been put forward, which can guide future research efforts aimed at building a theory of antecedents of entrepreneurial career choice.

4.5. Limitations and future research

A few limitations are related to the literature-review method. In the first place, the database- and library-search phase of the literature review underlying this paper may not have yielded all the scholarly works on entrepreneurial career choice available, so that some important sources may have been overlooked. Secondly, the choice of search results to be included in the literature review for in-depth analysis was kept as objective as possible by choosing those sources that dealt with entrepreneurial career choice in general and antecedents in particular. In spite of this, some subjectivity on the part of the authors in the selection of the sources to be analysed might have been at play. Finally, this paper has a limitation with regard to the proposed framework of antecedents and its underlying relationships. In an effort to focus on the personal and environmental factors that are related to entrepreneurial career choice, the proposed framework may ignore other more complex and indirect relationships between antecedents and entrepreneurial career choice.

The framework depicted in Figure 4.1 represents the first step in building a theory of antecedents of entrepreneurial career choice. In the scholarly conversation on entrepreneurial career choice, Dyer's Model of Entrepreneurial Careers is often cited or at least acknowledged. Nonetheless, Dyer himself never verified it in later studies, which have followed different research foci (Bell De Tienne, Dyer, Hoopes & Harris, 2004; Bingham, Dyer, Smith & Adams, 2011; Dyer & Handler, 1994; Dyer, 1997, 1999, 2003,

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2006). In addition, the extant literature on entrepreneurial career choice shows that most research efforts have been in the field of the powerful predictors of entrepreneurial career choice – such as entrepreneurial intentions, self-efficacy and career anchors – and not focused on the antecedents of entrepreneurial career choice. Accordingly, Dyer's Model of Entrepreneurial Careers has not been revised, so that at present it does not constitute a valid model of antecedents. Future research efforts could focus on building a theory of antecedents of entrepreneurial career choice by undertaking two tasks.

Firstly, since Dyer's Model of Entrepreneurial Careers was never challenged, there is a need to justify the presence of each antecedent variable in the framework proposed in Figure 4.1, by verifying that a relationship between each antecedent and entrepreneurial career choice is supported in more recent literature. This effort will extend research on the antecedents of entrepreneurial career choice. Secondly, since Dyer's framework has not been revised, future research could undertake to examine the relationship between each antecedent presented in Figure 4.1 and entrepreneurial career choice. At this stage of the present theory-building endeavour, it is suggested that at least the correlation between the antecedents and entrepreneurial career choice be investigated.

The implications for practice stemming from this paper are not immediate and depend on the results of future research on the antecedents of entrepreneurial career choice following the research trajectory traced in this paper.

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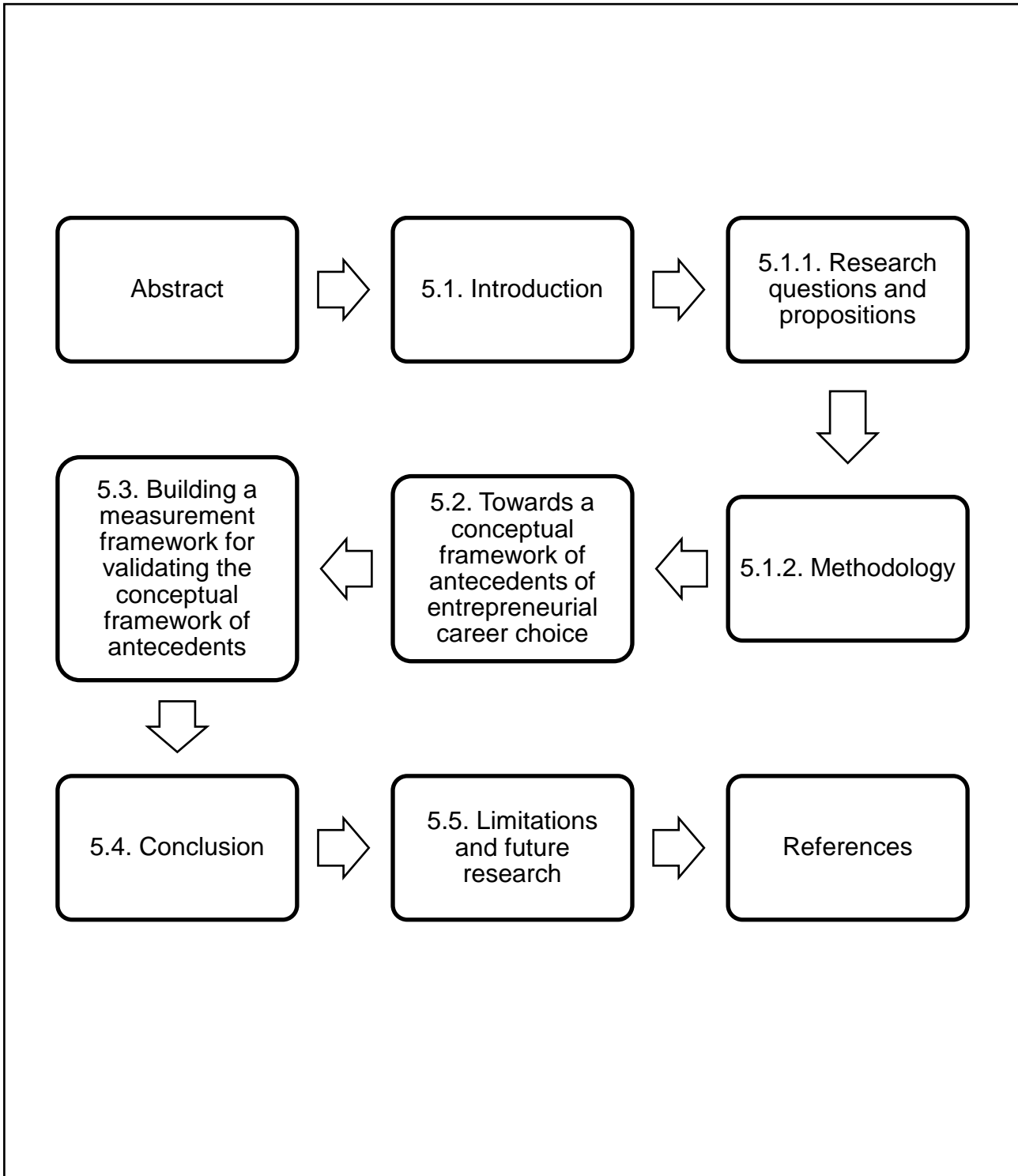
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**CHAPTER 5:
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CHAPTER 5 LAYOUT



CHAPTER 5

Paper 2

This chapter was submitted as an original manuscript.

Title: Antecedents of entrepreneurial career choice: A conceptual and measurement framework

Journal: International Small Business Journal

Authors: Bignotti, A. & Le Roux, I.

Submission date: 2013-10-03

Status: Under review

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Abstract

The antecedents of entrepreneurial career choice, conceived as the personal and environmental factors related to entrepreneurial-career-choice decisions, have been neglected in research. This paper aims at filling this research gap by building a conceptual framework of antecedents. It also constructs a measurement framework that can be used to validate the conceptual framework empirically. A thorough literature search was conducted to find literature support for the antecedents to be included in the conceptual framework and to identify validated measurement instruments for each antecedent. The conceptual and measurement framework can aid future research in building a theory of antecedents of entrepreneurial career choice.

Keywords: entrepreneurial career choice; antecedents; framework.

5.1. Introduction

Youth unemployment has affected a considerable number of young individuals in the last four decades, especially during the current global recession (Choudhry *et al.*, 2012: 77; World Bank, 2013: 170). Since the labour market is not able to absorb the young people who complete their education every year (Matsumoto *et al.*, 2012: 13; Scarpetta *et al.*, 2010: 9), governments worldwide have tried to encourage young people to find a way out of being unemployed by starting their own business and being self-employed (O'Higgins, 2010; Xavier *et al.*, 2013: 53; Schoof & Semlali, 2008). The increasing number of entrepreneurship education programmes is an indication of the seriousness of the matter (Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2011: 196; O'Connor, 2013: 547; Sánchez, 2013: 447). In spite of these efforts, youth worldwide still prefer employment in a formal organisation to self-employment as a career path (Sieger *et al.*, 2011: 13). The assumption one may arrive at is that efforts to foster the choice of an entrepreneurial career among young people have been ineffective. It is therefore paramount to understand the personal and environmental factors behind people's decisions to opt for an entrepreneurial career, or the levers that governments and education-and-training institutions worldwide can activate to prompt more young individuals into choosing entrepreneurship as a career.

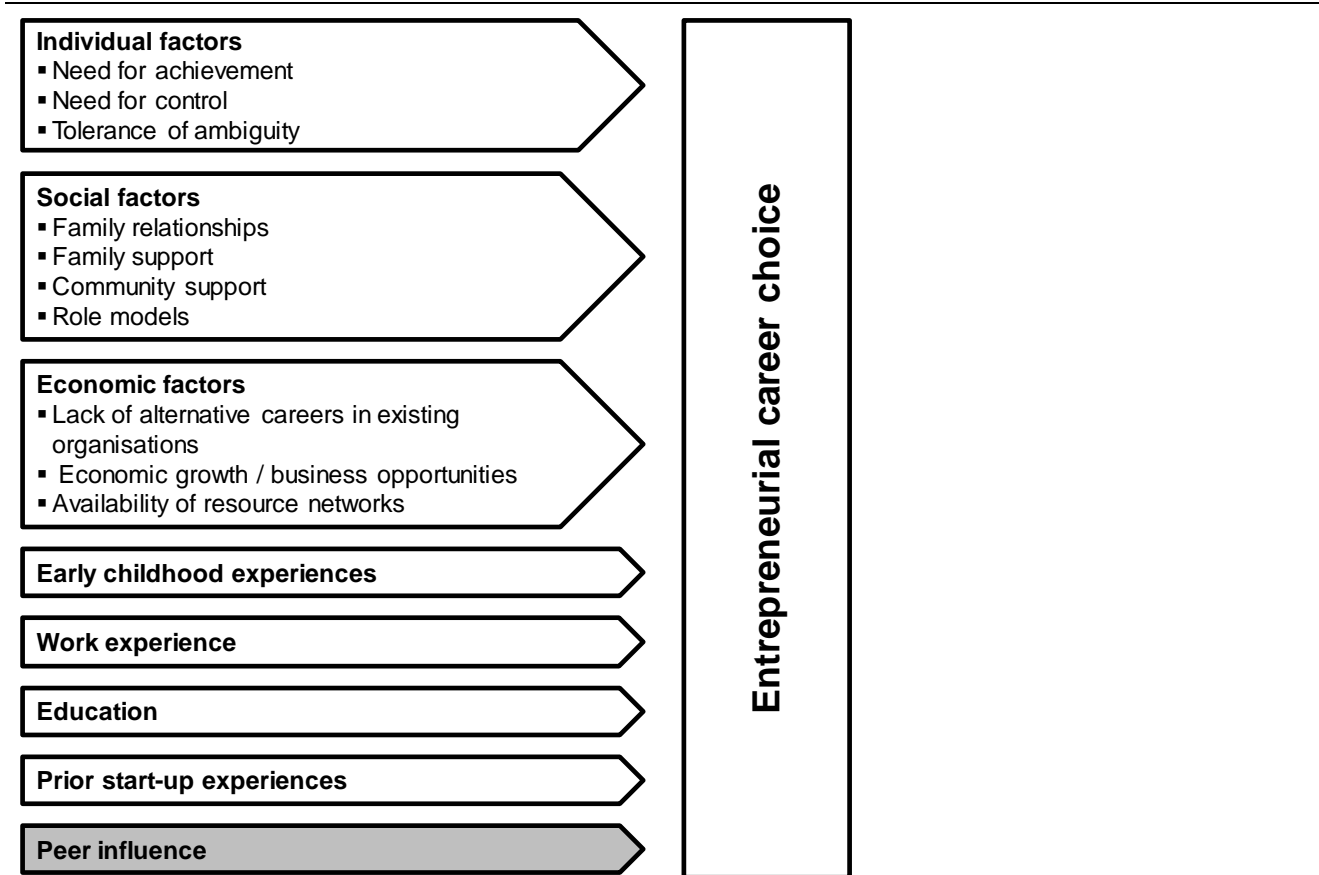
Past research on entrepreneurial career choice has mainly focused on predictors of career choices, such as entrepreneurial intentions (Ajzen, 1991; Bird, 1988, 1989; Krueger &

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Carsrud, 1993; Krueger *et al.*, 2000; Shapero & Sokol, 1982), entrepreneurial self-efficacy (Boyd & Vozikis, 1994; Scherer, Adams & Wiebe, 1989; Urban, 2010a; Zhao, Seibert & Hills, 2005) and career anchors (Bezuidenhout *et al.*, 2013; Nieuwenhuizen & Groenewald, 2006; Schein, 1993). These predictors have been widely acknowledged to influence career choice decisions. There is, however, no consensus on which personal and environmental factors are related to the entrepreneurial-career-choice decision, either directly or indirectly through their impact on the predictors of entrepreneurial career choice. It is postulated that entrepreneurial-career-choice research has mainly revolved around the relationship between the above-mentioned predictors and entrepreneurial career choice. This does not aid us in our understanding of what, on the personal and environmental levels, triggers this career-choice decision. Ultimately, the tested predictors of entrepreneurial career choice are not innate characteristics or predispositions. On the contrary, they are influenced by other variables, the knowledge and understanding of which is vital to unleash the chain of influence on entrepreneurial career choice. This paper builds on the results of the investigation of entrepreneurial-career-choice frameworks conducted in Paper 1 (Chapter 4) and the framework of antecedents therein proposed. It focuses on the *antecedents* of entrepreneurial career choice, defined as the personal and environmental factors that first elicit the choice of an entrepreneurial career.

It appears that the antecedents of entrepreneurial career choice have been largely overlooked in research and are still locked in a black box (Ahmed, Nawaz, Ahmad, Shaukat, Usman, Rehaman & Ahmed, 2010: 15; Zhao *et al.*, 2010: 382). Given the apparent ineffectiveness of interventions aimed at encouraging youth entrepreneurship career decisions, it is important to understand which personal and environmental factors are related to the choice of an entrepreneurial career path. The study performed in Paper 1 attempted to identify an existing comprehensive framework of antecedents of entrepreneurial career choice in the literature. An in-depth evaluation of how exhaustively entrepreneurial-career-choice theories and frameworks cover antecedents was performed. It was concluded that Dyer's (1994) Model of Entrepreneurial Careers offers the most comprehensive classification of antecedents. An extended version of Dyer's framework was proposed, illustrated in Figure 5.1.

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Source: adapted from Dyer (1994)

Figure 5.1: Proposed framework of antecedents of entrepreneurial career choice

The antecedents depicted in Figure 5.1 (proposed framework) represent a starting point for building a theoretical framework of antecedents of entrepreneurial career choice. It was suggested that further research should address the research gaps left in theory building, summarised by two aims. The first aim deals with the need to verify that the relationship between each antecedent in Figure 5.1 and entrepreneurial career choice is supported by more recent literature, in order for a robust theory of antecedents of entrepreneurial career choice to be built. The reason being that the framework depicted in Figure 5.1 is mainly an adaptation of Dyer's Model of Entrepreneurial Careers, which was never challenged. The second aim is concerned with the need to investigate the relationship between each antecedent in the framework and entrepreneurial career choice, in order to verify that the framework of antecedents represents a valid conceptual framework of antecedents of entrepreneurial career choice. This paper continues previous attempts to open the black box of antecedents of entrepreneurial career choice by addressing both research aims.

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It begins by constructing a conceptual framework of antecedents, thus contributing to the entrepreneurial-career-choice body of knowledge. It also aims to suggest a measurement framework for compiling a questionnaire to empirically validate the conceptual framework of antecedents introduced by this paper. This paper refers to the proposed framework of antecedents of entrepreneurial career choice illustrated in Figure 5.1 as “the proposed framework”. The new conceptual framework of antecedents built in this paper is referred to as “the conceptual framework”. This framework comprises the antecedents of the proposed framework that, according to the literature, are related to entrepreneurial career choice.

To address the above, this paper first conducts an in-depth literature search focusing on the antecedents of entrepreneurial career choice of the proposed framework (Figure 5.1). The antecedents whose relationship with entrepreneurial career choice is supported by more recent literature will form part of the conceptual framework. Secondly, this paper searches in the literature for validated research instruments for each variable included in the conceptual framework. This will lead to a measurement framework starting from which future research can attempt to validate the conceptual framework of antecedents empirically at the individual level by devising a data-collection instrument based on this measurement framework.

5.1.1. *Research questions and propositions*

The following research questions give direction to the literature search conducted in this paper and to the drafting of a conceptual and measurement framework of antecedents of entrepreneurial career choice.

1. What support exists in the literature for the relationship between each antecedent in the *proposed* framework and entrepreneurial career choice?
2. How can each variable in the *conceptual* framework be measured?

The proposition arrived at based on the first research question is:

Proposition 1: the antecedents of the proposed framework are related to entrepreneurial career choice.

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In line with the second research question and based on the results of this paper with regards to the proposition outlined above, the following proposition can also be formulated.

Proposition 2: the variables of the conceptual framework of antecedents of entrepreneurial career choice can be measured.

This paper makes three contributions. Firstly, it brings current research on the antecedents of entrepreneurial career choice to a conceptual framework of antecedents. Secondly, by offering a conceptual framework of antecedents of entrepreneurial career choice, this paper offers governments and education-and-training institutions worldwide a guiding tool for their efforts to promote entrepreneurship among youth. Thirdly, it builds a measurement framework suitable for the task of empirically validating the conceptual framework of antecedents constructed in this paper. This will enable researchers to verify whether or not this framework represents a valid conceptual framework of antecedents. Overall, this paper makes a valuable contribution by extending previous research attempts to build a theory of antecedents of entrepreneurial career choice.

5.1.2. Methodology

To achieve the above aims, a literature search was conducted, guided by the following two objectives.

1. Finding support in more recent literature for the relationship between each antecedent of the proposed framework and entrepreneurial career choice.
2. Identifying validated measurement instruments for each of the variables included in the conceptual framework of antecedents.

The literature search was guided by the following principles. Firstly, the construct of entrepreneurial career choice was dissected. For the purposes of this paper, the construct was extended to include other constructs that deal with a remote decision to start a business in the future. The literature search considered studies that have equated entrepreneurial career choice to constructs such as entrepreneurial intentions and entrepreneurial aspirations, and that have investigated the link between the antecedents of the framework and these constructs. This relaxed definition is permitted because entrepreneurial career choice involves many stages of an individual's career-decision process (Dyer, 1994; Lent *et al.*, 1994; Schein, 1993), which span from remote inclinations

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to start a business to more focused and action-oriented decisions. Secondly, this paper aims at verifying, in the literature, a correlation relationship between the antecedents and entrepreneurial career choice. All the studies that report a correlation relationship between the antecedent in question and entrepreneurial career choice were deemed supportive.

This literature search was conducted through an online search of the following prominent business-management and entrepreneurship database search engines, with the following databases covered by each database search engine:

- EBSCOhost, including Academic Search Premier, Business Search Premier, E-Journals, Humanities International Complete, TOC Premier;
- ABI / Inform Complete, including Applied Social Sciences Index and Abstracts, British Humanities Index, EconLit, ProQuest Business Collection, ProQuest Dissertations and Theses Full Text, Sociological Abstracts.

The reason for including databases related to the humanities is that research on entrepreneurial career choice often borrows concepts, frameworks and theories from these disciplines.

For each variable of the proposed framework, the following online search criteria were utilised. The variety of approaches across the variables can be attributed to the present research having dynamically adapted the keywords and fields used, in order to obtain more sources.

- i. Need for achievement: “need for achievement” (title) and “entrepreneur” (anywhere); “need for achievement” (abstract) and “measure” (anywhere).
- ii. Locus of control: “locus of control” (title) and “entrepreneur” (anywhere); “locus of control” (abstract) and “measure” (anywhere).
- iii. Tolerance of ambiguity: “tolerance of ambiguity” (abstract) and “entrepreneur” (anywhere); “tolerance of ambiguity” (abstract) and “measure” (anywhere).
- iv. Family relationships: “family relationship” (title) and “entrepreneur” (anywhere); “family background” (title) and “entrepreneur” (anywhere).
- v. Family support: “family support” (title) and “entrepreneur” (anywhere); “family support” (abstract) and “entrepreneur” (anywhere); “family support” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).

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- vi. Community support: “community support” (title) and “entrepreneur” (anywhere); “social capital” (title) and “entrepreneur” (title); “social network” (title) and “entrepreneur” (title); “community support” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- vii. Role models: “role model” (title) and “entrepreneur” (anywhere); “role model” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- viii. Lack of alternative careers in existing organisations: “push entrepreneurship” (title); “necessity entrepreneur” (title).
- ix. Economic growth / business opportunities: “opportunity” (title) and “entrepreneur” (title); “pull entrepreneurship” (title); “opportunity entrepreneur” (title).
- x. Availability of resource networks: “resource network” (title) and “entrepreneur” (anywhere).
- xi. Early childhood experiences: “childhood” (title) and “entrepreneur” (anywhere); “childhood experience” (abstract) and “entrepreneur” (title); “childhood” (abstract) and “entrepreneur” (title); “childhood experience” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- xii. Work experience: “work experience” (title) and “entrepreneur” (anywhere); “work experience” (anywhere) and “entrepreneur” (title); “work experience” (abstract) and “entrepreneur” (title); “work experience” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- xiii. Education: “education” (title) and “entrepreneur” (title); “education” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- xiv. Prior start-up experiences: “prior start-up experience” (abstract) and “entrepreneur” (title); “prior entrepreneurial experience” (abstract) and “entrepreneur” (title); “prior experience” (abstract) and “entrepreneur” (title); “entrepreneurial experience” (abstract) and “entrepreneur” (title); “prior experience” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- xv. Peer influence: “peer influence” (abstract) and “entrepreneur” (title); “peers” (abstract) and “entrepreneur” (title); “peer influence” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).
- xvi. Entrepreneurial career choice: “entrepreneurial career choice” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere); “entrepreneurial intentions” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere);

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“entrepreneurial aspirations” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere); “entrepreneurial orientation” (abstract) and “entrepreneur” (anywhere) and “measure” (anywhere).

The primary unit of investigation of this paper are the antecedents of the proposed framework of antecedents of entrepreneurial career choice. These will be dealt with in the first part of the paper. The secondary unit of investigation are the measurement instruments for each of the variables that will form part of the conceptual framework of antecedents, addressed in the second part of this paper. The unit of analysis is the literature on the variables of the proposed framework of antecedents, encompassing both the fifteen proposed antecedents and entrepreneurial career choice.

The literature search produced several results, 96 of which were retrieved, read and deemed to be relevant for this paper’s objectives. Of these, 91 were scholarly journal articles, three were books and two were chapters in books.

The findings of the literature search are interpreted in terms of the literature support for the relationship between each antecedent of the proposed framework (Figure 5.1) and entrepreneurial career choice. In addition, the findings are interpreted in terms of the available measurement instruments for the variables of the conceptual framework, including both the antecedents and the entrepreneurial-career-choice variable. As mentioned previously, the antecedents constituting the conceptual framework of antecedents are those whose relationship with entrepreneurial career choice was verified in recent literature in the first part of the paper.

The following two sections are based on the results of the literature search. It should be anticipated that the results were limited by the fact that this paper focused specifically on the antecedents of entrepreneurial career choice, as opposed to factors displayed by people who are already entrepreneurs, the latter being more commonly covered in the literature.

5.2. Towards a conceptual framework of antecedents of entrepreneurial career choice

In this section, this paper presents the results of the literature search in an attempt to find support in more recent literature for the relationship between each antecedent in the proposed framework and entrepreneurial career choice. The goal is to arrive at a conceptual framework of antecedents, which is expected to be equal to or differ from the proposed version of the framework, depending on the results of the literature search.

Before analysing the literature search results, it is important to discuss the individual factors *need for achievement*, *locus of control* and *tolerance of ambiguity*, justifying why individual factors have been investigated and why these three individual factors specifically.

Identifying entrepreneurs by their psychological attributes is typical of the schools of thinking on personality (Wickham, 2006: 53). This approach has been extensively criticised for not being able to define entrepreneurship clearly. Consequently, other measures have been proposed for this purpose (Gartner, 1989: 21). Recently, however, there have been calls not to abandon elements of the person typical of the personality-based research stream (Hmieleski & Baron, 2009: 474; Hmieleski & Corbett, 2008: 493; Schjoedt & Shaver, 2012: 748). Studies focusing on personality traits have found personality characteristics to be positively related to entrepreneurial intentions (Zhao *et al.*, 2010). It was therefore decided to keep individual factors in the framework because, even if their relationship with entrepreneurial career choice is not robust, they are nevertheless factors that influence people's career choices (Dyer, 1994: 9).

Many individual factors of entrepreneurs have been identified in the literature (Botha, 2009: 32–33; Timmons & Spinelli, 2009: 47). This paper focuses on the three main individual factors depicted in the proposed framework: need for achievement, locus of control and tolerance of ambiguity. These were adapted from Dyer's (1994) Model of Entrepreneurial Careers.

After introducing some clarity about the individual factors investigated, the literature support for the relationship between each antecedent in the proposed framework and

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entrepreneurial career choice is presented in Table 5.1. The results presented in Table 5.1 constitute the foundation of this study and give direction to the rest of the paper.

Table 5.1: Antecedents of entrepreneurial career choice and supporting literature

Antecedent	Summary of literature support	Literature coverage
1. Need for achievement	<p>Most studies on the relationship between need for achievement and entrepreneurial career choice report a positive relationship.</p> <p>It has been found that the need-for-achievement antecedent is positively related to entrepreneurial career choice, entrepreneurial intentions, business start-up and venture growth.</p>	(Gürol & Atsan, 2006; Hansemark, 2003; Lee & Tsang, 2001; Rauch & Frese, 2007; Ryan, Tipu & Zeffane, 2011; Zeffane, 2013)
2. Locus of control	<p>Locus of control appears to be positively related to entrepreneurial career choice.</p> <p>The majority of studies show that this antecedent has a positive relationship with entrepreneurial career choice, business start-up and venture growth.</p> <p>Locus of control is more commonly exhibited by entrepreneurs than non-entrepreneurs.</p>	(Cromie, 2000; de Pillis & DeWitt, 2008; Entrialgo, Fernández & Vázquez, 2000; Gürol & Atsan, 2006; Hansemark, 2003; Kroeck, Bullough & Reynolds, 2010; Lee & Tsang, 2001)
3. Tolerance of ambiguity	<p>Most of the literature supports the positive relationship between tolerance of ambiguity and entrepreneurial career choice.</p> <p>This antecedent has been found in entrepreneurs and in corporate entrepreneurs, but not in small-business owners, and has proved to be positively related to people's entrepreneurial intentions.</p>	(de Pillis & DeWitt, 2008; Entrialgo <i>et al.</i> , 2000; Gürol & Atsan, 2006; Murugesan, 2010; Wagener, Gorgievski & Rijdsdijk, 2010)
4. Family relationships	<p>Evidence about the relationship between family relationships and entrepreneurial career choice is mixed. Some studies report that factors such as family income, family business background, family structure and the father's self-employment status are positively related to entrepreneurial career choice.</p> <p>Other studies found a negative relationship or no relationship between factors such as family business background and firm ownership and an individual's entrepreneurial career choice.</p> <p>Another group of studies reveals a positive relationship between entrepreneurial career choice and family relationships, where the latter are conceived as role models present in the family.</p> <p>Owing to these mixed results and to the fact that this antecedent has been treated as a special case of role models, the antecedent <i>family relationships</i> was removed from the framework and included under <i>role models</i>.</p>	(Gega, Vukaj & Elmazi, 2011; Göksel & Aydintan, 2011; Hundley, 2006; Matthews & Moser, 1996; Rigby, Mueller, Partridge & Kriel, 2008; Ugwu & Ugwu, 2012; Zellweger <i>et al.</i> , 2011)

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Antecedent	Summary of literature support	Literature coverage
5. Family support	<p>Family support has been found to be positively related to entrepreneurial career choice.</p> <p>Family support, in the form of financial support or non-financial support, such as psychological and physical support (i.e. labour), contributes to an individual's business start-up decisions.</p>	<p>(Abdullah & Sulaiman, 2013; Chang, Memili, Chrisman, Kellermanns & Chua, 2009; Gega <i>et al.</i>, 2011; Latha & Murthy, 2009; Siqueira, 2007)</p>
6. Community support	<p>Community support has been reported to be positively related to entrepreneurial career choice. In particular, community support may encourage entrepreneurial career choice by aiding the prospective entrepreneur in identifying and harnessing various resources needed, such as information and finance.</p> <p>It also provides role models, expertise, mentorship and other forms of support, all of which may encourage an individual to decide for an entrepreneurial career.</p>	<p>(Davidsson & Honig, 2003; Quan, 2012; Tas, Citci & Cesteneci, 2012; Todd, 2012)</p>
7. Role models	<p>There is widespread support in the literature for the positive relationship between this antecedent and entrepreneurial career choice.</p> <p>Role models can be parents, family members, relatives or entrepreneurs per se.</p> <p>Role models may encourage entrepreneurial career choice by teaching by example, teaching by actual support, fostering people's entrepreneurial self-efficacy and giving inspiration and motivation.</p> <p>Role models exert an influence on entrepreneurial career choice already during adolescence. Both secondary-school and university students with role models have displayed entrepreneurial intentions.</p>	<p>(Athayde, 2009; BarNir, Watson & Hutchins, 2011; Bosma, Hessels, Schutjens, Van Praag & Verheul, 2012; Chlosta, Patzelt, Klein & Dormann, 2010; Evans, 2009; Hisrich, Peters & Shepherd, 2008; Muofhe & Du Toit, 2011; Nauta & Kokaly, 2001; Van Auken, Fry & Stephens, 2006)</p>
8. Lack of alternative careers in existing organisations	<p>This antecedent can be equated with some of the push factors that result in self-employment. These factors encompass unemployment, limited financial rewards from conventional jobs, insufficient job opportunities and no other employment alternatives. Lack of alternative careers in existing organisations and other push factors give rise to what in the literature is called 'necessity entrepreneurship'.</p> <p>Necessity entrepreneurship is more ubiquitous in developing countries, where the scarcity of jobs and high poverty levels prompt people to be self-employed, often in the informal sector and in sub-standard forms of work.</p>	<p>(Botha, 2009; Davey <i>et al.</i>, 2011; Xavier <i>et al.</i>, 2013; Serviere, 2010; Turton & Herrington, 2013)</p>

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Antecedent	Summary of literature support	Literature coverage
9. Economic growth / business opportunities	<p>The literature often provides evidence for the fact that entrepreneurship fosters economic development. The reciprocal argument – that economic growth encourages people to choose entrepreneurship as a career – is seldom found. However, there is support for this latter position.</p> <p>Some authors claim that factors related to economic growth and that enable the exploitation of business opportunities encourage people to become entrepreneurs.</p> <p>This antecedent corresponds to the pull factors that positively prompt people to start a business, a decision triggered by economic growth and the presence of sound business opportunities to seize. These factors give rise to what the literature calls ‘opportunity entrepreneurship’. This is more present in advanced economies, and displays an economic environment conducive to business-venture start-up.</p>	(Cuervo, 2005; Xavier <i>et al.</i> , 2013; Turton & Herrington, 2013)
10. Availability of resource networks	<p>Literature on this antecedent is limited, as most studies deal with resource networks and their role in enterprise growth and performance. Nonetheless, a few studies have observed the relationship between resource networks and entrepreneurial career choice.</p> <p>Resource networks encourage people to choose an entrepreneurial career because they guarantee the availability of required resources, contribute to lowering the costs of doing business, provide for the accumulation of shared specific knowledge and facilitate agglomeration economies. Undoubtedly, resource search and resource-network building are crucial activities in venture start-up, for which resource networks are necessary. Resource availability is a factor that prospective entrepreneurs take into account when considering starting a business.</p>	(Cuervo, 2005; Grossman, Yli-Renko & Janakiraman, 2012; Xavier <i>et al.</i> , 2013)
11. Early childhood experiences	<p>There is some evidence that early childhood experiences encourage entrepreneurial career choice. Studies on the profile of entrepreneurs have revealed that early childhood experiences are a common feature encompassing involvement of some sort in the family business early on in life, a difficult childhood, challenging situations and even frequent re-location during childhood. These experiences are deemed to build entrepreneurs’ resilience and their capacity to cope with and learn from adversity.</p>	(Cox & Jennings, 1995; Drennan, Kennedy & Redfrow, 2005; Dyer & Handler, 1994)

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Antecedent	Summary of literature support	Literature coverage
12. Work experience	<p>This antecedent has been found to relate positively to entrepreneurial career choice. Having worked for a business organisation increases the likelihood of business start-up activities and can even predict this phenomenon. Especially, work experience in a similar or related field and scope in functional work experience is related positively to the initial stages of business start-up and entrepreneurial career choice. On the contrary, poor work experience represents a barrier to entrepreneurial career choice.</p>	<p>(Gabrielsson & Politis, 2012; Kemelgor, D'Souza & Henley, 2011; Mueller, 2006; Nair & Pandey, 2006; Wood & Davidson, 2011)</p>
13. Education	<p>The positive influence of education, especially entrepreneurship education, on entrepreneurial career choice is well documented in the literature. This is based on the commonly-accepted belief that entrepreneurship can be taught.</p> <p>Both general education and entrepreneurship education have been found to be related positively to entrepreneurial career choice. There is evidence that entrepreneurship education is related positively to the entrepreneurial intentions of both university and secondary school students.</p>	<p>(Athayde, 2009; Davidsson & Honig, 2003; Fayolle <i>et al.</i>, 2006; Kuratko, 2005; Liñán <i>et al.</i>, 2011; Muofhe & Du Toit, 2011; Peterman & Kennedy, 2003; Sánchez, 2011, 2013; Sieger <i>et al.</i>, 2011; Wilson, Kickul & Marlino, 2007)</p>
14. Prior start-up experiences	<p>The points of view from which authors have viewed prior start-up experiences and their relationship with entrepreneurial career choice are varied. Nevertheless, studies on prior start-up experiences report a positive, although sometimes indirect, relationship between this antecedent and entrepreneurial career choice.</p>	<p>(Davey <i>et al.</i>, 2011; Davidsson & Honig, 2003; Dimov, 2010; Farmer, Yao & Kung-Mcintyre, 2011; Gird & Bagraim, 2008; Politis, 2008; Rotefoss & Kolvereid, 2005; Stuetzer, Obschonka & Schmitt-Rodermund, 2013)</p>
15. Peer influence	<p>This antecedent is rarely covered in the literature. Few studies have investigated the relationship between peer influence and entrepreneurial career choice. The limited number of studies addressing this antecedent, however, supports its positive relationship with entrepreneurial career choice. It has, for example, been found that people are more likely to become entrepreneurs when their peers have been entrepreneurs or when their peers have at least one parent who is an entrepreneur.</p>	<p>(Bönte <i>et al.</i>, 2009; Falck <i>et al.</i>, 2012; Nanda & Sørensen, 2010)</p>

Table 5.1 shows that literature support for the relationship between each antecedent of the proposed framework (Figure 5.1) and entrepreneurial career choice could be found for all the antecedents of the framework except for family relationships. Consequently, the

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antecedent *family relationships* was not included in the conceptual framework of antecedents of entrepreneurial career choice constructed in this paper.

With regards to *need for achievement, locus of control* and *work experience*, some studies postulate that a negative relationship or that no relationship exists between these antecedents and entrepreneurial career choice. Hansemark (2003), for example, reports that need for achievement has no predictive validity over the entrepreneurial activity of start-up. Cromie (2000) points out that studies that have used general measures of locus of control have yielded inconclusive results about the relationship between this antecedent and entrepreneurial career choice. Investigating work experience, Gabriellsson and Politis (2012) found that deep industry work experience is negatively related to the idea-generation phase of venture start-up, which can be considered one of the final stages in the process of entrepreneurial career choice. The studies that are not in support of a positive relationship between *need for achievement, locus of control* and *work experience* and entrepreneurial career choice are few compared to those in support. They therefore do not compromise the inclusion of these antecedents in the conceptual framework of antecedents.

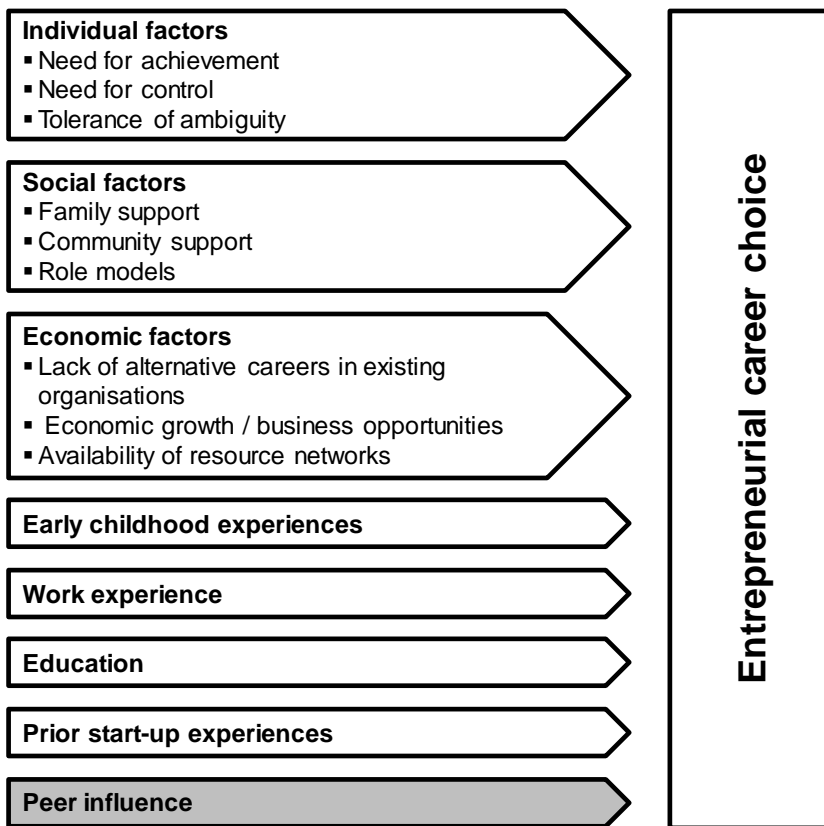
For other antecedents, namely *community support, economic growth/business opportunities, availability of resource networks, early childhood experiences* and *peer influence*, the literature in support of the relationship between these antecedents and entrepreneurial career choice is limited. It can be argued that this may be the result of a number of reasons. Firstly, the definitions of these antecedents in the literature are broad and vary across authors. A literature search based on certain keywords can result in a limited number of results. The concept of early childhood experiences, for example, is defined in terms of different experiences and is also called differently by different authors. The paper also focuses strictly on entrepreneurial career choice as the variable to which the antecedents are related. Although a relaxed definition of entrepreneurial career choice was used in the literature search, the studies that do not assume this focus and investigate entrepreneurial behaviour after venture start-up were not considered. In the case of availability of resource networks, for example, most studies in the literature deal with resource networks and their role in enterprise growth and performance, whereas very few observe the relationship between availability of resource networks and entrepreneurial

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career choice or venture start-up motivation. Lastly, in the case of *peer influence* the literature on its relationship with entrepreneurial career choice simply happens to be limited. In general, not many studies on peer influence in entrepreneurship exist. Nonetheless, the few studies that were identified in the literature search are in support of a positive relationship between the two variables. Consequently, this antecedent was added to the conceptual framework of antecedents.

The results from the literature search were used to construct a conceptual framework of antecedents of entrepreneurial career choice. The literature search was conducted to find support for the relationship between the antecedents of the proposed framework (Figure 5.1) and entrepreneurial career choice. The antecedents whose relationship with entrepreneurial career choice is supported in the literature make up the conceptual framework of antecedents of entrepreneurial career choice, illustrated in Figure 5.2. The literature provides support for a positive relationship existing between all the antecedents of the proposed framework, except for family relationships. Therefore, all the antecedents of the proposed framework, except for family relationships, have been included in the conceptual framework (Figure 5.2).

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Source: authors' own compilation

Figure 5.2: Conceptual framework of antecedents of entrepreneurial career choice

The conceptual framework of antecedents of entrepreneurial career choice thus consists of fourteen antecedents. The first thirteen are taken from Dyer's Model of Entrepreneurial Careers, while *peer influence* represents an addition to Dyer's antecedents.

5.3. Building a measurement framework for validating the conceptual framework of antecedents

The second part of this paper aims at laying the foundation for validating the conceptual framework of antecedents of entrepreneurial career choice (Figure 5.2) with a view to verifying whether this framework represents a valid conceptual framework of antecedents. More concretely, the second aim of this paper is to suggest a measurement framework for building a data-collection instrument which could be used in validating the framework empirically at the individual level. It is suggested that this data-collection instrument be a questionnaire.

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In order to achieve this aim, the literature search underlying this paper also had the objective of identifying in the literature validated measurement instruments, or sets of questions, for all the variables of the conceptual framework of antecedents (Figure 5.2); the variables being the fourteen antecedents and the entrepreneurial-career-choice variable.

For the selection of the measurement instrument for each antecedent and for entrepreneurial career choice, the following criteria were used:

1. Reliability. This is testified by the measurement instrument having $\alpha \geq 0.70$ (George & Mallery, 2003: 231).
2. Simplicity and brevity. Owing to the substantially high number of variables in the framework, it is likely that the compilation of the measurement instrument of each single antecedent and of entrepreneurial career choice into one comprehensive data-collection instrument will lead to a very complex questionnaire. Therefore, simple and brief measurement instruments are preferable.

Based on the above criteria, Table 5.2 reports the measurement instruments that could be identified in the literature and that were chosen for each variable of the conceptual framework. Table 5.2 represents a measurement framework for building a data-collection instrument for validating the conceptual framework of antecedents empirically at the individual level.

Table 5.2: Measurement instruments for the variables of the conceptual framework of antecedents

Variable	Measurement instrument	Characteristics	Notes
1. Need for achievement	Steers and Braunstein's (1976: 254) Measure of Manifest Needs	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.72$ (Jha, 2010: 385; Steers & Braunstein, 1976: 258) ▪ 5 items ▪ Response scale: 7-point Likert scale 	This scale was used in work-related settings

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Variable	Measurement instrument	Characteristics	Notes
2. Locus of control	Louden's (1978: 293) abbreviated version of Nowicki and Strickland's Internality-Externality Scale	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.61$ (Furnham & Steele, 1993: 462) ▪ 12 items ▪ Response scale: Yes-No 	Notwithstanding $\alpha < 0.70$, this scale was chosen because it is one of the simplest. Nowicki and Strickland's scale has 40 items and $0.62 \leq \alpha \leq 0.81$ (Furnham & Steele, 1993: 462).
3. Tolerance of ambiguity	Herman, Stevens, Bird, Mendenhall and Oddou's (2010: 64) Scale	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.73$ (Herman <i>et al.</i>, 2010: 61) ▪ 12 items ▪ Response scale: 5-point Likert scale 	
4. Family support	Carr and Sequeira's (2007: 1097) Measure of Perceived Family Support	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.87$ (Carr & Sequeira, 2007: 1094) ▪ 8 items ▪ Response scale: 5-point Likert scale 	This scale measures an individual's reflected appraisal and subjective norm regarding the support one receives from his/her immediate family about starting a business (Carr & Sequeira, 2007: 1094)
5. Community support	Liao and Welsch's (2005: 354) Scale	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.70$ (Liao & Welsch, 2005: 357) ▪ 10 items ▪ Response scale: 5-point Likert scale 	
6. Role models	Nauta and Kokaly's (2001: 91) Influence of Others on Academic and Career Decisions Scale	<ul style="list-style-type: none"> ▪ Reliability: $\alpha=0.91$ (Nauta & Kokaly, 2001: 89) ▪ 15 items ▪ Response scale: 5-point Likert scale 	This scale was used with undergraduate university students
7. Lack of alternative careers in existing organisations	n.a.		(see discussion after table)
8. Economic growth / business opportunities			
9. Availability of resource networks			

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Variable	Measurement instrument	Characteristics	Notes
10. Early childhood experiences	Ad-hoc questions: "I have worked in a business" "I have sold goods and services"	<ul style="list-style-type: none"> ▪ Response scale: Yes-No 	
11. Work experience	Ad-hoc questions: "I have worked in my parents' business" "I have done a holiday job" "I have worked in a part-time job such as waiting"	<ul style="list-style-type: none"> ▪ Response scale for Q1: Yes-No-n.a.* ▪ Response scale for Q2 and Q3: Yes-No 	*not applicable (because your parents don't run their own business)
12. Education	Ad-hoc questions: "I am taking or have taken Business Management or Entrepreneurship as a subject" "If I am taking or have taken Business Management or Entrepreneurship as a subject, my average mark is/was: ..."	<ul style="list-style-type: none"> ▪ Response scale for Q1: Yes-No ▪ Response scale for Q2: open-ended 	
13. Prior start-up experiences	Ad-hoc questions: "I have attempted to start a business" "I have helped someone to start a business"	<ul style="list-style-type: none"> ▪ Response scale: Yes-No 	
14. Peer influence	Ad-hoc questions: "My friends / classmates want to start a business" "My friends / classmates have parents and/or relatives that run their own business"	<ul style="list-style-type: none"> ▪ Response scale: Yes-no-not sure 	

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Variable	Measurement instrument	Characteristics	Notes
15. Entrepreneurial career choice	Ad-hoc question: "I consider running my own business as an employment option for me after school/university."	<ul style="list-style-type: none"> ▪ Derived from Davidsson (1995: 12), Krueger (1993: 11) and Urban (2006a: 95) ▪ The measures from these sources have a reliability of, respectively: $\alpha=0.84$ (Davidsson, 1995: 12), not specified (Krueger, 1993: 13), $\alpha=0.94$ (Urban, 2006a: 97). ▪ Response scale: Yes-No 	

The following observations are worth discussing. With respect to the antecedents *lack of alternative careers in existing organisations, economic growth/business opportunities* and *availability of resource networks*, it is important to point out that these are country-specific or regional-level variables. It is therefore meaningless to include questions about these variables in a measurement framework aimed at verifying the relationship between the antecedents and entrepreneurial career choice at the individual level. In the case where the framework of antecedents is validated empirically at the national level, these exogenous variables are expected to be the same across the entire sample population and thus will not be different for respondents displaying entrepreneurial-career-choice intentions and those not having these intentions. In the event of a cross-country validation of the framework, it will be relevant to consider the measurement of these variables so as to investigate their relationship with entrepreneurial career choice across individuals from countries with different levels in these variables. However, measures of these variables can be gained from national or regional information, not at the individual level through a questionnaire. For the above reasons, measurement instruments for these variables were not considered in the measurement framework built for individual-level empirical validation of the conceptual framework of antecedents.

Another observation worth making is that, for variables 10 to 14 simple ad-hoc questions to measure these variables were formulated. This is because validated measurement

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instruments for them were not found in the literature. As is evident from the previous discussion on the literature support for each of these antecedents, these variables have been investigated from multiple angles. Ad-hoc questions to measure these antecedents were included in the measurement framework. It is the prerogative of future researchers to use these questions or develop an alternative set of questions for these variables.

As a result of the above analysis, it can be stated that all the variables of the conceptual framework can be measured. A validated measurement instrument was identified for each variable of the framework or, in the absence of such a measurement instrument, a new set of questions was devised. Although questions about *lack of alternative careers in existing organisations*, *economic growth/business opportunities* and *availability of resource networks* were not included in the measurement framework because of the above-mentioned reasons, these variables can be safely assumed to be measurable.

5.4. Conclusion

Faced with the mounting wave of youth unemployment in recent years, governments and education-and-training institutions worldwide have attempted in multiple ways to encourage youth to choose entrepreneurship as a career path. The issue of young people's entrepreneurial-career-choice intentions has been addressed with an increasing number of entrepreneurship education programmes (Liñán *et al.*, 2011; O'Connor, 2013; Sánchez, 2013). These efforts have largely been ineffective: the reality still is that most young people prefer being employed in a formal organisation to being self-employed. The ineffectiveness of efforts to foster youth entrepreneurship has made the search for the antecedents related to entrepreneurial career choice increasingly important. The need to know what personal and environmental factors are related to the selection of entrepreneurship as a career has become vital in addressing the issues of entrance into entrepreneurship. Although a vast array of studies have been done in the entrepreneurial-career-choice sphere, to date the antecedents of entrepreneurial career choice have been overlooked and research has focused mainly on some powerful predictors of entrepreneurial career choice, such as entrepreneurial intentions. These predictors are not innate to individuals, and we do not have a complete and commonly-shared picture of what triggers entrepreneurial career choice at personal and contextual levels.

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This paper continues the effort of building a theory of antecedents of entrepreneurial career choice. It has sought to address the lack of a validated framework of antecedents of entrepreneurial career choice by building a conceptual framework of antecedents and by providing a measurement framework for validating the conceptual framework empirically. It has adopted a proposed framework of antecedents of entrepreneurial career choice and undertaken two theory-building endeavours. The first was to verify, against more recent literature, that the relationship between each antecedent of the proposed framework and entrepreneurial career choice is supported. The outcome of this study was a conceptual framework of antecedents, made up of the antecedents whose relationship with entrepreneurial career choice is supported by more recent literature. The second endeavour consisted in building a measurement framework that can be used in future research to validate the conceptual framework of antecedents empirically at the individual level. This objective was mainly performed starting from the measurement instruments available in the literature for the antecedents of the conceptual framework. The measurement framework that was developed can be utilised to draft a data-collection instrument (a questionnaire) for validating the conceptual framework empirically on an individual level.

Literature support for all the antecedents of the proposed framework, except for family relationships, was found. The conceptual framework of antecedents thus consists of fourteen antecedents of entrepreneurial career choice: *need for achievement, locus of control, tolerance of ambiguity, family support, community support, role models, lack of alternative careers in existing organisations, economic growth/business opportunities, availability of resource networks, early childhood experiences, work experience, education, prior start-up experiences* and *peer influence*. In addition, a measurement framework for most of the antecedents of the conceptual framework of antecedents was constructed. This comprises validated measurement instruments, available in the literature, or questions devised for the specific purpose of validating the conceptual framework empirically, when validated measurement instruments could not be found. Questions about the antecedents belonging to the economic-factors group of antecedents in the conceptual framework were not included in the measurement framework, because these are aimed nationally or regionally. Consequently, they are not to be measured on an individual level.

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This paper makes three important contributions. Firstly, it brings the current conversation on the antecedents of entrepreneurial career choice to an extended conceptual framework of antecedents. Secondly, the conceptual framework of antecedents can already provide governments and education-and-training institutions worldwide with an indication of which personal and environmental factors are potentially related to young people's entrepreneurial-career-choice decisions. Finally, it contributes a measurement framework for validating the conceptual framework of antecedents empirically.

5.5. Limitations and future research

The limitations of the paper are related to the nature of the literature-search methodology. In the first place, the choice of the keywords and fields used in the literature search is arbitrary, even though such choice was kept as broad and as flexible as possible. This might have resulted in the present research ignoring a few important sources on the antecedents of entrepreneurial career choice and on validated measurement instruments. Secondly, the choice of which sources to retrieve and read in depth also has some degree of arbitrariness. Finally, it should be re-iterated that the conceptual framework of antecedents was built based on the literature support for a correlation relationship, rather than a causal relationship, between the antecedents and entrepreneurial career choice.

Future research to validate the conceptual framework of antecedents empirically starting from the measurement framework built in this paper is suggested. This will verify whether or not the conceptual framework of antecedents represents a valid framework of antecedents of entrepreneurial career choice.

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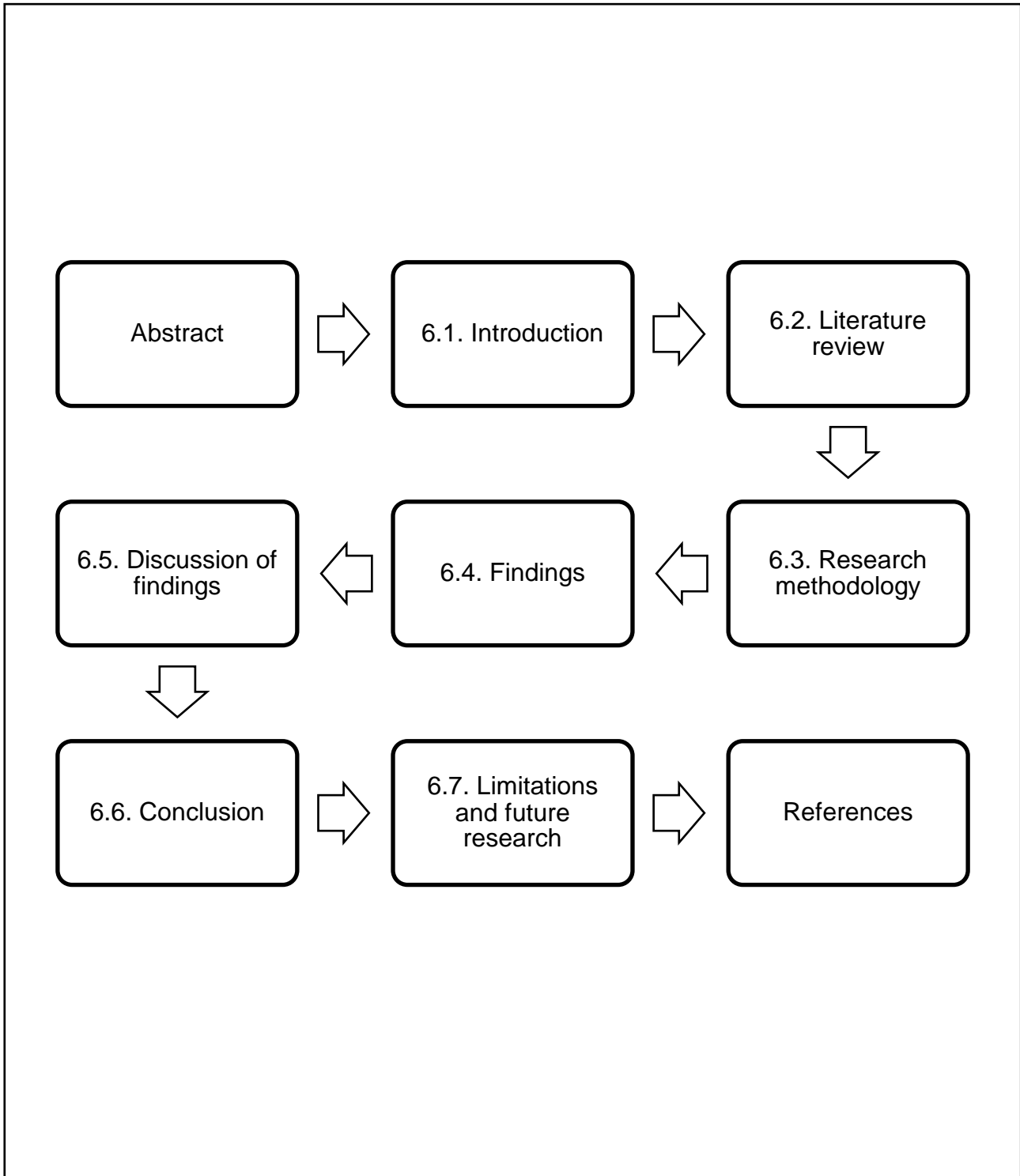
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CHAPTER 6: Explaining entrepreneurial career choice through antecedents

CHAPTER 6 LAYOUT



CHAPTER 6

Paper 3

This chapter was submitted as an original manuscript.

Title: Explaining entrepreneurial career choice through antecedents

Journal: Entrepreneurship and Regional Development

Authors: Bignotti, A. & Le Roux, I.

Submission date: 2013-10-04

Status: Under review

Abstract

Most entrepreneurial-career-choice theories and models revolve around powerful predictors of entrepreneurial career choice, such as entrepreneurial intentions, entrepreneurial self-efficacy and career anchors. The antecedents of entrepreneurial career choice, conceived as the personal and environmental factors that are related to entrepreneurial-career-choice decisions, have been largely overlooked. Little is known about which antecedents contribute to the formation of entrepreneurial-career-choice interests on the personal and contextual levels. Knowledge of these antecedents has the potential to improve the effectiveness of interventions aimed at motivating young people to choose entrepreneurship as a career. This paper seeks to address the lack of a comprehensive theory of antecedents of entrepreneurial career choice by validating a conceptual framework of antecedents empirically in a sample of secondary-school learners. It investigates the relationship between the antecedents of the framework and entrepreneurial-career-choice intentions. The results reveal that family support, community support, early childhood experiences, work experience, prior start-up experiences and education are related to secondary-school students' entrepreneurial-career-choice intentions. This paper offers a foundation from which future researchers can build a theory of antecedents of entrepreneurial career choice and provides policy makers with an indication of the personal and environmental factors relating to young people's entrepreneurial career choice.

6.1. Introduction

For decades, authors have attempted to understand what contributes to the formation of entrepreneurial-career-choice interests and the choice of entrepreneurship as a career path. Most entrepreneurial-career-choice literature has focused on powerful predictors of entrepreneurial career choice. The most common are entrepreneurial intentions (Ajzen, 1991, 2011; Bird, 1988, 1989; Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame & Wolff, 2010; Gird & Bagraim, 2008; Krueger & Carsrud, 1993; Krueger *et al.*, 2000; Van Gelderen *et al.*, 2008), entrepreneurial self-efficacy (Boyd & Vozikis, 1994; Hmieleski & Corbett, 2008; Scherer, Adams & Wiebe, 1989; Urban, 2010a; Wilson *et al.*, 2007; Zhao *et al.*, 2005) and career anchors (Bezuidenhout *et al.*, 2013; Nieuwenhuizen & Groenewald, 2006; Schein, 1993). These are complex constructs that have been found to predict entrepreneurial career choice accurately. These predictors are not innate

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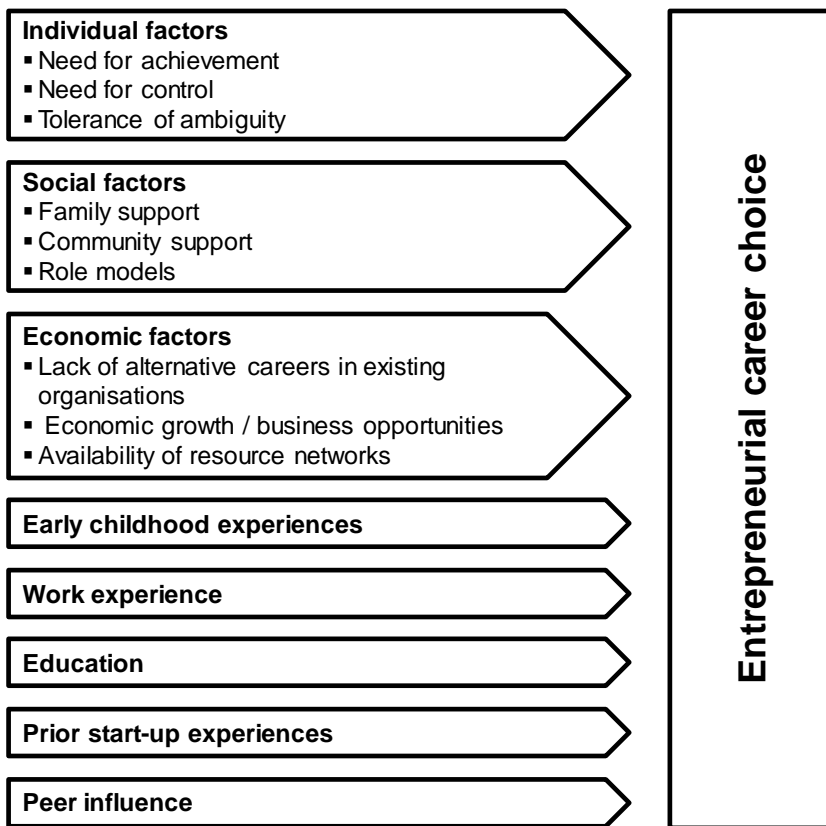
characteristics or predispositions, and are influenced by other factors. The chain of influence on people's entrepreneurial-career-choice decisions begins at a different point, on both a personal and a contextual level in which they make career decisions. The lack of understanding of what contributes to people's entrepreneurial-career-choice decisions on the personal and contextual levels may be one of the reasons why interventions to foster entrepreneurial career choice among young people have been apparently ineffective.

Despite these efforts, youth worldwide still prefer employment in a formal organisation to self-employment as a career path (Sieger *et al.*, 2011: 13). This fact is disconcerting, given the current high levels of youth unemployment rates and the inability of the labour market to provide for the employment of young people completing their education every year (Bell & Blanchflower, 2011: 245; ILO & UNESCO, 2006: 16). The lack of a comprehensive theory of antecedents of entrepreneurial career choice thus represents a research gap that needs to be filled in order to encourage young people more effectively to choose entrepreneurship as a career.

The personal and environmental factors relating to entrepreneurial career choice and triggering the chain of influence on career decisions are defined in this paper as the antecedents of entrepreneurial career choice. These have been largely overlooked in entrepreneurial-career-choice research and there is also no consensus in the literature on which factors represent the antecedents of entrepreneurial career choice. A theory describing in detail which personal and environmental factors are related to entrepreneurial career choice is lacking.

This paper aims to fill the research gap by empirically validating a comprehensive conceptual framework of antecedents of entrepreneurial career choice. It departs from the results of Paper 2 (Chapter 5) and, concretely, from the conceptual framework of antecedents that was built in that study. The conceptual framework of antecedents to be subjected to empirical validation is shown in Figure 6.1.

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Source: authors' own compilation, adapted from Dyer (1994)

Figure 6.1: Conceptual framework of antecedents of entrepreneurial career choice

The empirical investigation of the relationship between each antecedent of the framework and respondents' entrepreneurial career choice is the basis for establishing which antecedents may be included in a theory of antecedents of entrepreneurial career choice.

The following section provides an overview of entrepreneurial career choice and the antecedents depicted in Figure 6.1.

6.2. Literature review

6.2.1. *Entrepreneurial career choice*

The choice to become an entrepreneur can be viewed as a career choice (Douglas & Shepherd, 2002; Pihie, 2009). An entrepreneurial career is often considered in opposition to other career paths, especially careers in formal organisations (Kolvereid, 1996a; Tkachev & Kolvereid, 1999; Zellweger *et al.*, 2011). Entrepreneurial career development involves many stages (Dyer, 1994; Lent *et al.*, 1994; Schein, 1993), of which one is the

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decision to embark on an entrepreneurial career path, more commonly denominated “entrepreneurial career choice”. This paper focuses on entrepreneurial career choice as the stage in entrepreneurial-career development that anticipates venture start-up and that entails entrepreneurial-career-interest formation and the entrepreneurial-career-choice decision. Hence, the entrepreneurial-career-choice construct can be equated to similar constructs, such as entrepreneurial intentions and entrepreneurial aspirations.

6.2.2. *Individual factors*

Individual factors have been found by some authors to be related to entrepreneurial career choice (Zhao *et al.*, 2010: 394). Need for achievement is an individual factor that is exhibited by individuals who seek challenging tasks, accept responsibility for them and demand feedback on their execution (Rauch & Frese, 2007: 358). A person with need for achievement has expectations of doing something better and faster than others or than in his or her own previous endeavours (McClelland, 1990). Some studies support the positive relationship between need for achievement and entrepreneurial career choice or entrepreneurial activities (Gürol & Atsan, 2006; Lee & Tsang, 2001; Rauch & Frese, 2007; Ryan *et al.*, 2011; Zeffane, 2013).

Internal locus of control (in this paper simply denominated “locus of control”) consists in people’s attribution of the reasons for an occurrence to themselves (Rotter, 1966: 1). There is support in the literature for the positive relationship between locus of control and entrepreneurial career choice (de Pillis & DeWitt, 2008; Entrialgo *et al.*, 2000; Gürol & Atsan, 2006; Hansemark, 2003; Kroeck *et al.*, 2010; Lee & Tsang, 2001).

Tolerance of ambiguity is the individual factor that corresponds to people’s propensity to view as positively challenging situations where sufficient information is lacking (Koh, 1996: 15). Several studies postulate the existence of a positive relationship between this individual factor and entrepreneurial career choice (de Pillis & DeWitt, 2008; Entrialgo *et al.*, 2000; Murugesan, 2010; Wagener *et al.*, 2010).

6.2.3. *Social factors*

A number of social factors have also been found to be related to entrepreneurial career choice. Family support is a social factor that entails the support people receive from their

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family for pursuing an entrepreneurial career (Chang *et al.*, 2009: 284). This type of support can come both in the form of financial support (Latha & Murthy, 2009) and non-financial support, such as psychological and physical support (i.e. labour) (Siqueira, 2007: 33). Family support has been reported to be positively related to people's entrepreneurial-career-choice decisions (Abdullah & Sulaiman, 2013; Chang *et al.*, 2009; Gega *et al.*, 2011; Latha & Murthy, 2009; Siqueira, 2007).

Community support, often equated with social networks, also relates to entrepreneurial career choice positively (Davidsson & Honig, 2003; Quan, 2012; Tas *et al.*, 2012; Todd, 2012). The community may support one's entrepreneurial-career-choice intentions by providing valuable resources such as information, advice and even finance (Tas *et al.*, 2012).

Role models have been extensively associated with people's entrepreneurial-career-choice decisions (BarNir *et al.*, 2011; Evans, 2009; Muofhe & Du Toit, 2011; Nauta & Kokaly, 2001). Hisrich *et al.* (2008: 61) recognise the role played by role models in an entrepreneur's career path. According to the authors, role models can be family members and relatives, as well as other entrepreneurs. Likewise, Athayde (2009: 495) and Chlosta *et al.* (2010: 132) found that having parental role models increases the likelihood of being self-employed in the future. Role models may fulfil the following functions: teach by example, teach by actual support, foster entrepreneurial self-efficacy and give inspiration and motivation (Bosma *et al.*, 2012: 422).

6.2.4. *Economic factors*

People may be prompted to choose an entrepreneurial career owing to the economic conditions surrounding them. Entrepreneurship can be seen as the result of push or pull factors (Botha, 2009: 34). Push factors trigger necessity entrepreneurship, which corresponds to the phenomenon of starting a business as a reaction to lack of alternative careers in existing organisations (Xavier *et al.*, 2013: 14; Serviere, 2010: 41). Pull factors, such as economic growth and business opportunities, give rise to opportunity entrepreneurship, that is entrepreneurship motivated by the fact that the economy is growing and that there are sound business opportunities to seize (Cuervo, 2005: 297; Xavier *et al.*, 2013: 14).

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The availability of resource networks also may be related to people's entrepreneurial-career-choice decisions. Resource networks can encourage people to choose entrepreneurship as a career because they guarantee the availability of required resources, contribute to the lowering of costs of doing business, provide for the accumulation of shared specific knowledge and facilitate agglomeration economies (Cuervo, 2005: 304). Prospective entrepreneurs need to garner the resources needed to start their business venture; hence, resource availability is a factor that they consider when starting a business (Xavier *et al.*, 2013).

6.2.5. *Early childhood experiences*

Early childhood experiences, such as involvement of some sort in the family business early in life, a difficult childhood and frequent re-location may be related to the choice of an entrepreneurial career (Drennan *et al.*, 2005: 7; Dyer & Handler, 1994: 78). Early childhood experiences seem to build entrepreneurs' resilience and the capacity to cope with and learn from adversity (Cox & Jennings, 1995: 9).

6.2.6. *Work experience*

There is evidence that people who choose entrepreneurship as a career path have already accumulated some work experience (Gabrielsson & Politis, 2012: 64; Mueller, 2006: 55). It has been found that work experience in a similar or related field encourages entrepreneurial career choice (Nair & Pandey, 2006: 55). One of the reasons for this could be that people who have work experience prior to starting a business are able to tap into work-related proprietary information channels (Kemelgor *et al.*, 2011: 34), which represent an important aid in venture creation.

6.2.7. *Education*

Some authors have found evidence that general education and business education are positively related to the choice of an entrepreneurial career (Davidsson & Honig, 2003: 321; Sánchez, 2011: 249; Sieger *et al.*, 2011: 13; Wilson *et al.*, 2007: 398). Most authors, however, have focused on the relationship between entrepreneurship education and entrepreneurial career choice, based on the assumption that entrepreneurship can be taught (Kuratko, 2005: 580). A number of studies have found entrepreneurship education to be positively related to university students' entrepreneurial-career-choice intentions

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(Fayolle *et al.*, 2006; Liñán *et al.*, 2011; Muofhe & Du Toit, 2011). Similar studies focusing on secondary-school students reveal the same positive relationship (Athayde, 2009; Peterman & Kennedy, 2003; Sánchez, 2013).

6.2.8. *Prior start-up experiences*

The relationship between prior start-up experiences and entrepreneurial career choice has been viewed from different angles. Some authors have observed that this antecedent is the factor most responsible for stimulating the initiation and completion of the business start-up stage (Davidsson & Honig, 2003: 321; Rotefoss & Kolvereid, 2005: 120) and that it exerts a significant influence on entrepreneurial career choice (Gird & Bagraim, 2008: 720). University students with self-employment experience have been found to display higher entrepreneurial-career-choice intentions than students without such experience (Davey *et al.*, 2011: 343). Prior start-up experiences positively influence the entrepreneur's learning process and skills development that underlie business-venture creation in its early stages (Politis, 2008: 484; Stuetzer *et al.*, 2013: 107).

6.2.9. *Peer influence*

The example given by peers may be related to an individual's entrepreneurial-career-choice intentions. People whose colleagues have had prior start-up experiences have proved to be more likely to become entrepreneurs than people whose colleagues were never involved in entrepreneurial activities (Nanda & Sørensen, 2010: 1124). Likewise, adolescents whose peers have at least one parent who is an entrepreneur are more likely to become entrepreneurs (Falck *et al.*, 2012: 51). Peer effects, such as people's access to information and external resources resulting from their social network, have been found to have a positive relationship with people's business start-up activities (Bönte *et al.*, 2009).

6.3. Research methodology

6.3.1. *Research question, propositions and hypotheses*

This paper aims at empirically validating the conceptual framework of antecedents of entrepreneurial career choice (Figure 6.1) to verify whether or not it represents a valid framework of antecedents of entrepreneurial career choice. The research questions guiding this paper are thus the following:

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1. Does the conceptual framework represent a valid framework of antecedents of entrepreneurial career choice?
2. Are the antecedents of the conceptual framework related to entrepreneurial career choice?

To give direction to the present empirical analysis of the antecedents of entrepreneurial career choice, the following overall proposition is put forward:

1. The antecedents of the framework are not related to entrepreneurial career choice.

The research objective of this paper is to validate the conceptual framework of antecedents empirically making use of a questionnaire to be administered in a sample of secondary-school respondents. The relationship between each antecedent of the conceptual framework and respondents' entrepreneurial-career-choice intentions is thus investigated on an individual level. Therefore, this paper does not examine the relationship between the economic factors of the framework of antecedents (*lack of alternative careers in existing organisations, economic growth/business opportunities and availability of resource networks*) and entrepreneurial career choice. The reason is that these antecedents are generic factors that respondents of a national sample potentially have in common; hence, it was decided not to include them in the present study.

This study examines the relationship between respondents' entrepreneurial-career-choice intentions and eleven antecedents. The antecedents *need for achievement, locus of control, tolerance of ambiguity, family support, community support* and *role models* are complex constructs for which validated sets of questions were sourced and incorporated in the questionnaire. The antecedents *early childhood experiences, work experience, education, prior start-up experiences* and *peer influence* are "demographics", i.e. variables that describe the sample subjects under certain aspects. In the questionnaire, each of these latter antecedents is measured on a nominal scale by a set of two or three statements.

For each antecedent, a null and an alternative hypothesis were formulated, as follows:

H₀: the antecedent is not related to entrepreneurial career choice / H_A: the antecedent is related to entrepreneurial career choice.

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Null and alternative hypotheses thus formulated were set for all the eleven antecedents investigated, namely, *need for achievement, locus of control, tolerance of ambiguity, family support, community support, role models, early childhood experiences, work experience, education, prior start-up experiences* and *peer influence*. For each set of hypotheses, if a relationship between the antecedent in question and entrepreneurial career choice was empirically verified, H_0 was rejected and H_A accepted.

The unit of investigation of this paper is the relationship between respondents' entrepreneurial career choice and the antecedents of the conceptual framework, excluding economic factors. The findings of this study are interpreted in terms of the existence of a relationship between the antecedents and entrepreneurial career choice.

6.3.2. *Design and process*

To investigate the above hypotheses, a data-collection instrument measuring each of the variables of the conceptual framework (entrepreneurial career choice and the antecedents, excluding the economic factors of the framework) was constructed. The research relied on the framework proposed in Figure 6.1 to compile the questionnaire.

The questionnaire was subjected to a pilot test with a pilot sample of thirteen Grade-12 learners. The students found all the questionnaire's statements to be clear and the questionnaire easy.

6.3.3. *Instrument*

The questionnaire is made up of 75 items. The questionnaire's statements were formulated starting from validated measurement instruments available for the variables of the conceptual framework (Figure 6.1), and adapted to suit the sample of investigation. Statements to obtain respondents' biographical data were also included.

Entrepreneurial career choice was determined by one statement, derived from similar statements (Davidsson, 1995: 12; Krueger, 1993: 11; Urban, 2006a: 95), where respondents were asked to state their entrepreneurial-career-choice intentions on a dichotomous "yes-no" scale.

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The antecedents *need for achievement*, *locus of control*, *tolerance of ambiguity*, *family support*, *community support* and *role models* were measured by the questionnaire on a five-point Likert scale.

- *Need for achievement* was measured by five items, taken from Steers and Braunstein's (1976: 254) Measure of Manifest Needs.
- *Locus of control* was measured by eleven items, selected from Loudon (1978: 293) and converted from questions to statements.
- *Tolerance of ambiguity* was measured by twelve items, as described by Herman *et al.* (2010: 64).
- *Family support* was measured by seven items, taken from Carr and Sequeira's (2007: 1097) Measure of Perceived Family Support.
- *Community support* was measured by ten items, sourced from Liao and Welsch (2005: 354).
- *Role models* were determined by twelve items, selected from Nauta and Kokaly (2001: 91).

Early childhood experiences, *work experience*, *education*, *prior start-up experiences* and *peer influence* are demographic variables and were each determined by categorical statements measured on a nominal scale.

The statements measuring entrepreneurial career choice, need for achievement, tolerance of ambiguity, family support, community support and role models belong to validated set of items with reliability scores of Cronbach $\alpha > 0.70$, considered an acceptable level of reliability (George & Mallery, 2003: 231). The items measuring locus of control correspond to a set of statements with Cronbach $\alpha = 0.61$ which was deemed usable. The validity of the measurement instrument was analysed by five experts in the field, following one of the approaches suggested by Diamantopoulos and Schlegelmilch (2004: 34).

6.3.4. Sample

The respondents of the study were selected through a convenience sampling technique. The respondents were secondary-school learners of in Grades 10, 11 and 12, aged 16, 17 and 18, respectively. Respondents of 18 secondary schools, located in the Gauteng and

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Limpopo provinces of South Africa, took part in the study. This sample represents the unit of analysis of this study.

The questionnaire was administered to 859 secondary-school learners, 827 of whom completed the questionnaire adequately. This represents a response rate of 96%. This high response rate can be attributed to the facilitators' in each school being motivated to conduct this research successfully. The fact that the respondents were asked to complete the questionnaire during a class activity, thus in a controlled class environment, also explains why it was answered adequately.

Four-hundred-and-four respondents (49%) were secondary-school learners of schools where Junior Achievement South Africa (JASA) operates. JASA is a non-profit organisation that conducts entrepreneurship education and training interventions in South African secondary schools.

6.3.5. *Statistical procedures*

An exploratory factor analysis was conducted to support the verification of whether or not the constructs *locus of control*, *tolerance of ambiguity*, *community support* and *role models* represent distinct factors. The method chosen for the factor analysis was a maximum likelihood factor analysis with direct Quartimin. After selection, based on the items' contribution to the Cronbach alphas and their inter-correlation within each factor, and eliminating the items with low or double factor loadings, 24 of the original 45 items remained. After performing an oblique rotation on the data, the factor analysis suggested the existence of four factors.

The questionnaire also measured the constructs *need for achievement* and *family support* separately. These factors were item-analysed to verify their internal consistency. Table 6.1 reports their Cronbach alpha, mean, standard deviation and set of items.

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 Table 6.1: Factor items for *need for achievement* and *family support*

	Cronbach alpha reliability	Mean	Std Dev	Item	Statement
Need for achievement	0.60	4.27	0.64	v4	I try to perform better than my peers.
				v5	I do my best work when my assignments are fairly difficult.
				v6	I try very hard to improve on my past performance.
Family support	0.76	3.71	0.57	v53	My parent(s) feel _____ about my starting a business.
				v54	My close friends feel _____ about my starting a business.
				v55	My co-students feel _____ about my starting a business.
				v56	My brother/sister feels _____ about my starting a business.
				v57	My neighbour feels _____ about my starting a business.
				v58	In general my acquaintances feel _____ about my starting a business.
				v59	In general my relatives feel _____ about my starting a business.

The need-for-achievement factor had an overall mean of 4.27, suggesting a non-normal distribution (skewness). This factor's Cronbach alpha was also low, especially considering that two items had to be eliminated to obtain it. *Need for achievement* was therefore given less prominence in the present study. On the contrary, *family support* had good internal consistency and was included as a factor in the present analysis.

The correlation between the factors was measured by Pearson correlation coefficients. To determine the relationship between the factors and entrepreneurial career choice, a t-test was performed, which allows to compare respondents who consider running their own business as a career option and those who do not in terms of each of the factors. Thereafter, a discriminant analysis was executed to predict career choice based on the factors.

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Owing to the fact that the data generated for the relevant demographic antecedents *early childhood experiences, work experience, education, prior start-up experiences* and *peer influence* is nominal, a chi-square test was required to investigate the relationship between these antecedents and entrepreneurial career choice.

6.4. Findings

The present section presents the findings of this study. Table 6.2 describes the sample respondents. In line with the overall South African population is the proportion of respondents that have an African vernacular language as home language. The majority of respondents (76%) were in Grade 11 at the time the questionnaire was administered, and 61% of respondents were taking business studies as a subject at school.

Table 6.2: Demographic data of respondents

Groups	Frequency	Percentage
<i>Gender</i>		
Male	335	40.6%
Female	491	59.4%
<i>Missing = 1</i>		
<i>Home language (indicating social background)</i>		
Afrikaans	161	19.5%
English	142	17.2%
African	409	49.4%
Other	115	13.9%
<i>Academic year (school grade)</i>		
Grade 10	110	13.3%
Grade 11	628	75.9%
Grade 12	89	10.8%
<i>Business studies as school subject</i>		
	504	60.9%

The results of respondents' entrepreneurial-career-choice intentions are shown in Table 6.3. Seventy-nine percent of respondents stated that they consider starting a business as a career option.

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Table 6.3: Entrepreneurial-career-choice distribution of respondents

“I consider running my own business as an employment option for me after school/university.”	Frequency	Percentage
YES	651	78.8%
NO	175	21.2%
<i>Missing = 1</i>		

The maximum likelihood factor analysis produced four factors, as shown in Table 6.4:

- Factor 1: *Role models: guidance*. The items that loaded on this factor mainly describe how people have someone to support them in their career and life decisions.
- Factor 2: *Community support*. This is the support that people perceive the community at large gives to entrepreneurs.
- Factor 3: *Role models: inspirational figure*. The items that loaded on this factor all describe how people have someone that inspires them in their career pursuits.
- Factor 4: *Locus of control*. This is people’s perception that they are the determinants of the occurrences in their lives.

Table 6.4: Factor matrix for antecedent factors identified

		Factor 1	Factor 2	Factor 3	Factor 4
Factor name		Role models: guidance	Community support	Role models: inspirational figure	Locus of control
Variable	Statement				
v38	There is someone who supports me in the career choices I make.	0.763^a	-0.069	0.080	-0.056
v16	There is someone I can count on to be there if I need support when I make career choices.	0.668	-0.012	0.007	-0.046
v22	There is someone who helps me weigh the pros and cons of the career choices I make.	0.624	0.028	-0.026	-0.080
vv15 ^b	There is no one who supports me when I make career decisions.	0.577	-0.124	0.012	0.199
v26	There is someone who tells or shows general strategies for a successful life.	0.472	0.225	0.079	-0.094

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		Factor 1	Factor 2	Factor 3	Factor 4
v9	I feel that most of the time my parents listen to what I have to say.	0.392	0.045	-0.036	0.082
v28	Banks and other investors go out their way to help new businesses get started.	-0.008	0.621	0.030	-0.103
v25	State and local governments provide good support for those starting new businesses.	-0.032	0.579	0.066	-0.216
v30	I feel that when good things happen they happen because of hard work.	0.053	0.513	0.044	0.201
v13	Young people are encouraged to be independent and start their own businesses.	0.042	0.510	0.007	0.050
v14	I am the kind of person who believes that planning ahead makes things turn out better.	0.012	0.450	-0.001	0.194
v49	The local media does a good job covering local business people.	-0.012	0.433	0.047	-0.173
v43	Other community groups provide good support for those starting new businesses.	0.101	0.347	0.069	-0.159
v24	A good teacher is one who makes you wonder about your way of looking at things.	0.011	0.337	-0.018	0.055
v51	There is someone I am trying to be like in my career pursuits.	-0.001	-0.019	0.744	-0.084
vv21	There is no one I am trying to be like in my career pursuits.	-0.117	-0.048	0.715	0.077
v10	In the career path I am pursuing, there is someone I admire.	0.065	0.080	0.453	-0.050
vv46	There is no one particularly inspirational to me in the career path I am pursuing.	0.166	0.029	0.320	0.186
vv45	I feel that most of the time it doesn't pay to try hard because things never turn out right anyway.	0.092	0.116	0.036	0.560
vv40	I usually feel that it's almost useless to try in school because most students are just plain smarter than I am.	-0.014	0.220	0.033	0.489
vv35	I feel that one of the best ways to handle most problems is just not to think about them.	-0.050	-0.143	-0.011	0.399
vv11	I often feel that whether or not I do my homework this has little to do with the kind of grades I get.	-0.051	-0.125	-0.016	0.349

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		Factor 1	Factor 2	Factor 3	Factor 4
vv23	I feel that it's really impossible to change my parents' mind about anything.	0.118	-0.129	0.069	0.316
vv37	I am often blamed for things that just aren't my fault.	0.072	0.089	-0.022	0.286
No. of items in factor		6	8	4	6
Eigenvalue		4.12	2.50	1.68	1.57
% variance explained by factor		14.41%	7.47%	4.34%	4.08%
% cumulative variance explained		14.41%	21.88%	26.22%	30.30%
Cronbach alpha reliability		0.76	0.71	0.66	0.54
Mean		3.92	3.84	3.36	3.37
Std dev		0.73	0.56	0.89	0.68

^a rotated factor loadings.

^b 'vv' items are reversed items.

The factor analysis could not identify tolerance of ambiguity as a factor. Instead, two types of *role-model* factors appear: role models in terms of guidance and role models in terms of inspirational figure. *Locus of control* and *community support* were identified by the factor analysis. Table 6.4 also presents the Cronbach alphas of the four factors identified, which is an indicator of the factors' reliability.

The relationships among the relevant factors were examined using the Pearson correlation test. Table 6.5 reports the Pearson correlation coefficients among *role models: guidance*, *community support*, *role models: inspirational figure*, *locus of control* and *family support*.

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Table 6.5: Correlation between factors – Pearson correlation coefficients

		F1	F2	F3	F4	F5
Role models: guidance (F1)	<i>r</i>	1.0000				
	<i>p</i>					
Community support (F2)	<i>r</i>	0.2720	1.0000			
	<i>p</i>	<0.0001**				
Role models: inspirational figure (F3)	<i>r</i>	0.2990	0.2266	1.0000		
	<i>p</i>	<0.0001**	<0.0001**			
Locus of control (F4)	<i>r</i>	0.2007	-0.0622	0.0812	1.0000	
	<i>p</i>	<0.0001**	0.0737	0.0196*		
Family support (F5)	<i>r</i>	0.3390	0.3368	0.1815	0.0816	1.0000
	<i>p</i>	<0.0001**	<0.0001**	<0.0001**	0.0189*	

** significant at 1% level; * significant at 5% level

Table 6.5 shows that the only correlation that was not significant is between *community support* and *locus of control*.

To compare respondents who consider running their own business as a career option and those who do not in terms of each of the identified factors, an independent-group t-test was run. Table 6.6 summarises the results.

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Table 6.6: Comparison of means across respondents choosing for or against an entrepreneurial career

t-test	Entrepreneurial career choice "I consider running my own business as an employment option for me after school/university."				t-test p value
	YES		NO		
	Mean	Std Dev	Mean	Std Dev	
Role models: guidance	3.94	0.72	3.84	0.75	0.1005
Community support	3.89	0.54	3.66	0.59	<0.0001**
Role models: inspirational figure	3.38	0.90	3.29	0.85	0.2263
Locus of control	3.36	0.67	3.42	0.71	0.3045
Family support	3.78	0.55	3.45	0.56	<0.0001**

** significant at 1% level; * significant at 5% level

Respondents who chose an entrepreneurial career scored significantly ($p < 0.01$) higher in *community support* and *family support* but not in locus of control and role models.

A discriminant analysis was applied to five factors to attempt predictions. Table 6.7 shows the results of the discriminant analysis.

Table 6.7: Discriminant analysis classification for entrepreneurial career choice – Classification matrix

Entrepreneurial career choice	Actual no. of cases	No. of cases predicted		Percentage accuracy
		Group 1: Yes	Group 2: No	
Group 1: Yes	651	419	232	64.4%
Group 2: No	176	70	106	60.2%
TOTAL		498	329	

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Community support and *family support* were the only two factors with a significant discriminating power. This confirms the results of the t-test reporting a relationship between these two factors and entrepreneurial career choice. According to the discriminant-analysis results, *community support* and *family support* are able to classify individuals into those who answered “yes” to entrepreneurial career choice with 64.4% accuracy and into those who answered “no” with 60.2% accuracy. The equations used to predict responses in favour of entrepreneurial career choice (group 1) and against entrepreneurial career choice (group 2) according to levels of community support and family support are expressed below:

$$ECY_1 = 9.9 \times CS + 9.3 \times FS \text{ (choosing an entrepreneurial career)}$$

$$ECY_2 = 9.5 \times CS + 8.4 \times FS \text{ (choosing against an entrepreneurial career)}$$

where ECY_1 is the number of responses in favour of an entrepreneurial career, ECY_2 is the number of responses against an entrepreneurial career, CS is community support and FS is family support.

The relationship between entrepreneurial career choice and the demographic antecedents *early childhood experiences*, *work experience*, *education*, *prior start-up experiences* and *peer influence* was examined through a chi-square test of association. Chi-square test was also applied to entrepreneurial career choice and the biographical variables *gender* and *home language*. Table 6.8 presents the chi-square test results for these variables.

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Table 6.8: Relationship between entrepreneurial career choice and demographic antecedents / biographical variables

Demographic antecedent	Statement	DF	Chi-square value	pr<	ECC relations
Early childhood experiences	"I have worked in a business."	1	10.1211	0.0015**	YES
Early childhood experiences	"I have sold goods and services."	1	9.0478	0.0026**	YES
Work experience	"I have done a holiday job."	1	8.3865	0.0038**	YES
Work experience	"I have worked in a part-time job such as waiting."	1	2.6352	0.1045	NO
Work experience	"I have worked in my parents' business."	2	11.4592	0.0032**	YES
Education (academic year)	(Grade 10, 11 or 12)	2	6.3530	0.0417*	YES
Education (business studies)	(Taking business studies as a school subject)	1	25.9620	<0.0001**	YES
Prior start-up experiences	"I have attempted to start a business."	1	63.9869	<0.0001**	YES
Prior start-up experiences	"I have helped someone to start a business."	1	10.9710	0.0009**	YES
Peer influence	"My friends /classmates want to start a business."	2	4.7408	0.0934	NO
Peer influence	"My friends /classmates have parents and/or relatives that run their own business."	2	0.2021	0.9039	NO
Biographical non-antecedent variable					
Gender	(Male or female)	1	7.0845	0.0078**	YES
Home language	(Afrikaans, English, African or other)	3	4.5274	0.2099	NO

^a Entrepreneurial career choice

** significant at 1% level; * significant at 5% level

Table 6.8 shows that the following demographic antecedents and biographical variables are related to entrepreneurial career choice: *early childhood experiences, education, prior*

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start-up experiences and *gender*. Differences appeared for the relationship between entrepreneurial career choice and the *work-experience* items.

Table 6.9 reports a cross-tabulation of frequencies for entrepreneurial career choice and the items that were significantly related with it.

Table 6.9: Percentage frequencies for entrepreneurial career choice and related demographic antecedents and biographical variables

		Entrepreneurial career choice "I consider running my own business as an employment option for me after school/university."	
		YES	NO
Early childhood experiences "I have worked in a business."	YES	48.69% ^a	35.23%
	NO	51.31%	64.77%
Early childhood experiences "I have sold goods and services."	YES	70.97%	59.09%
	NO	29.03%	40.91%
Work experience "I have done a holiday job."	YES	52.07%	39.77%
	NO	47.93%	60.23%
Work experience "I have worked in my parents' business."	YES	34.72%	21.59%
	NO	45.93%	52.84%
	n.a.*	19.35%	25.57%
Education "I am currently in grade:"	10	14.59%	8.52%
	11	75.58%	77.27%
	12	9.83%	14.20%
Education "I take EMS (Economic and Management Sciences) as a subject."	YES	65.44%	44.32%
	NO	34.56%	55.68%
Prior start-up experiences "I have attempted to start a business."	YES	68.82%	35.80%
	NO	31.18%	64.20%
Prior start-up experiences "I have helped someone to start a business."	YES	31.49%	18.75%
	NO	68.51%	81.25%
Gender "My gender is:"	MALE	42.92%	31.82%
	FEMALE	57.08%	68.18%

^a read as: of those that have entrepreneurial intentions, 49% have worked in a business.

* not applicable because respondents' parents don't run their own business.

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Although percentages should be compared to the actual distribution of the sample respondents in the different groups of comparison, Table 6.9 reveals some meaningful relationships. For instance, the respondents that have sold goods and services and have already attempted to start a business are more likely to have entrepreneurial-career-choice intentions. Respondents that take business studies as a subject at school are also more inclined to choose entrepreneurship as a career.

6.5. Discussion of findings

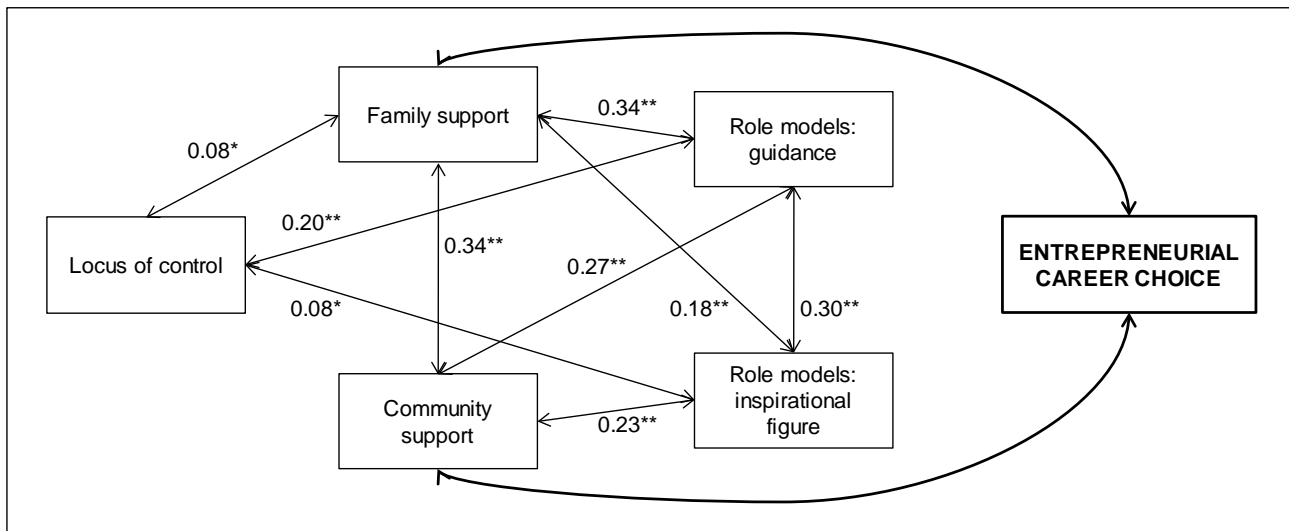
To discuss the findings meaningfully, the present section is structured to answer the hypotheses for each antecedent.

The present analysis revealed the existence of the factors *role models: guidance*, *community support*, *role models: inspirational figure* and *locus of control*. These four factors combined, however, explained only 30% of the variance in the data set, suggesting that a complex set of elements may be at play in the development of antecedent dimensions.

It is worth noting that, with regards to *locus of control*, only the reversed items of Louden's (1978: 293) scale loaded on this factor; this signifies that respondents more easily expressed their *locus-of-control* levels through negative statements. As for *role models*, the factor analysis revealed the existence of two sub-categories of role models: role models in terms of guidance and role models in terms of inspirational figure. It appears that secondary-school students distinguish between having a mentor giving them support in their career and life decisions and having an inspirational figure that they look up to in their career pursuits; the two need not coincide.

All of the factors resulting from the present analysis correlated with each other, the only exception being that there was no correlation between *community support* and *locus of control*. Figure 6.2 represents the factor correlations and the factors that correlate with entrepreneurial career choice.

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** significant at 1% level; * significant at 5% level

Figure 6.2: Relationship framework for antecedent factors and entrepreneurial career choice

The observation that *community support* has no relationship with *locus of control* appears consistent with the nature of these two constructs: the latter is a highly individual factor that deals with the degree to which people attribute the causes of occurrences to themselves, while the former is concerned with the support received from the community in setting up a business. The two constructs are significantly distinct.

This intricate network of inter-correlations complicates the analysis of which factors are related with entrepreneurial career choice. As Figure 6.2 shows, *family support* and *community support* are the only factors in this study that proved to be related to entrepreneurial career choice. The null hypotheses for these antecedents are therefore rejected and the corresponding alternative hypotheses are accepted.

This finding reveals that, for secondary-school students, the support – financial, mentoring or other – received from the family and the community are more important than individual factors such as *locus of control*. It also signifies that students take career decisions relying mainly on the support from their family and community. This result is in line with the fact that people in this age cohort depend on others for most of their decisions (Albert & Steinberg, 2011: 211). These factors also proved to classify respondents into those with entrepreneurial-career-choice intentions with 64% accuracy and those without these

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intentions with 60% accuracy. Given that, if left to chance, one has a 50% probability of choosing in favour or against an entrepreneurial career, *family support* and *community support* together appear to predict, although not very accurately, entrepreneurial career choice, especially the choice in favour of an entrepreneurial career.

Owing to the fact that *locus of control* and *role models* were not related with entrepreneurial career choice, the null hypotheses for these antecedents are accepted. It appears, therefore, that students' entrepreneurial-career-choice decisions are not directly affected by how much they feel in control of the occurrences in their lives or by the presence of supporting or inspirational figures. These findings are in contrast with previous studies, which observed that people's entrepreneurial-career-choice intentions are related to their locus-of-control levels (de Pillis & DeWitt, 2008; Gürol & Atsan, 2006; Hansemark, 2003; Kroeck *et al.*, 2010; Lee & Tsang, 2001) and having role models (BarNir *et al.*, 2011; Muofhe & Du Toit, 2011; Nauta & Kokaly, 2001).

Need for achievement, as measured in this study, proved to be a poorly measured construct and was not included in the present analysis. *Tolerance of ambiguity* could not be identified as a distinct factor. Consequently, the null hypotheses for these factors could not be explored.

Among the demographic antecedents, *early childhood experiences*, *prior start-up experiences* and *education* proved to be related to entrepreneurial career choice. The null hypotheses for these antecedents are therefore rejected and the corresponding alternative hypotheses that there is a relationship, are accepted.

Regarding *early childhood experiences* and *prior start-up experiences*, working in a business in one's spare time, selling goods and services, having attempted to start some form of business and helping others in their start-up efforts were related with respondents' entrepreneurial-career-choice intentions. Extra-curricular activities of this kind, therefore, seem to contribute in encouraging secondary-school students to make entrepreneurial-career-choice decisions. Focusing efforts to promote youth entrepreneurship solely on school curricula may thus be a reductive approach.

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Education does, however, also play a role. Taking business studies as a subject at school proved to be an antecedent variable. This suggests that current efforts to make secondary-school students aware of and sensitive to the entrepreneurial career (Burger *et al.*, 2004: 204; Le Roux, Pretorius & Millard, 2004: 50) have produced the intended results. In terms of academic year, the present analysis reveals that, compared to the overall sample distribution according to academic year, respondents in Grade 10 were more inclined to choose entrepreneurship as a career, whereas respondents in Grade 11 and 12 were less motivated to pursue this career path. This may be an indication of the fact that students in Grade 10 are more idealistic about entrepreneurial careers. As they mature, thereby acquiring a better understanding of what an entrepreneurial career entails and becoming aware of other career options, by the time they reach Grade 12 their entrepreneurial-career-choice intentions diminish. In line with this finding, there is evidence that young people view a career in entrepreneurship in more idealistic terms than adults (Farrington *et al.*, 2011: 11).

Regarding *work experience*, only two items out of three that measured this antecedent were related to entrepreneurial career choice. Having worked in a part-time job was not related to entrepreneurial career choice, but having done a holiday job and having worked in the family business were related. It can be postulated that a part-time job introduces young people to a job in a formal organisation and prompts them to pursue a similar career in the future. On the contrary, a holiday job and working in the family business are likely to expose young people to the entrepreneurial mindset congruent with raising capital through holiday jobs and to entrepreneurial role models present in the family. Since the majority of the items measuring work experience were related to entrepreneurial career choice, the null hypothesis for this antecedent is rejected and the alternative hypothesis that there is a relationship, is accepted.

Peer influence proved not to be related to entrepreneurial career choice; its null hypothesis that there is not a relationship, is thus accepted. Contrary to the researchers' expectations, secondary-school students appear not to be encouraged to choose an entrepreneurial career because of the example given by their peers. It seems, therefore, that they base their decision on well-pondered considerations, as opposed to just following a group mentality.

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Finally, the finding that the majority (79%) of respondents had entrepreneurial-career-choice intentions is in contrast with studies that testify to the opposite, especially in the case of South African youth (Turton & Herrington, 2013: 65; Viviers *et al.*, 2011: 35). This number might have been inflated by the fact that 49% of respondents had been exposed, some time over the course of their secondary-school studies, to the entrepreneurship-education-and-training programmes offered by JASA. However, this is a noteworthy result and suggests that a high proportion of South African secondary-school students consider running their own business as a career option. It also has to be considered that this study measures entrepreneurial-career-choice intentions; nonetheless, not everyone who intends to have an entrepreneurial career acts on this intention.

6.6. Conclusion

Entrepreneurial-career-choice research has widely focused on constructs such as entrepreneurial intentions, entrepreneurial self-efficacy and career anchors, which are postulated to influence people's entrepreneurial-career-choice decisions. However, these predictors of entrepreneurial career choice are not innate characteristics or predispositions. Little is known about the antecedents of entrepreneurial career choice, namely, which personal and environmental factors are related to entrepreneurial-career-choice intentions and decisions. Knowledge of these antecedents has the potential to improve the effectiveness of efforts to foster entrepreneurial career choice among young people.

This paper enhances the understanding of the antecedents of entrepreneurial career choice by empirically validating a conceptual framework of antecedents in a sample of Grade-10, -11 and -12 learners of secondary schools. The results of this study show that *family support, community support, early childhood experiences, work experience, prior start-up experiences* and *education* are related to students' entrepreneurial-career-choice intentions. The majority of the sample respondents (79%) displayed entrepreneurial-career-choice intentions, a result very different from similar investigations of young people's entrepreneurial intentions in South Africa.

This paper contributes to theory by postulating that a theory of antecedents of entrepreneurial career choice may include *family support, community support, early*

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childhood experiences, work experience, prior start-up experiences and *education* as antecedents. Future research efforts to build a theory of antecedents may wish to depart from these findings.

For policy makers and educators, the findings of this study imply that efforts to motivate young people to choose entrepreneurship as a career path should not focus on entrepreneurship-education-and-training interventions exclusively, but also on encouraging the development of work experience and prior start-up experiences among young people. The support received by the family and the community, and childhood experiences that expose the young individual to challenges, also appear to be contributing factors, more than individual characteristics. The inclusion of business studies in the secondary-school curriculum does, however, foster entrepreneurial-career-choice intentions.

6.7. Limitations and future research

Firstly, a substantial percentage of the sample (49%) had been exposed during their secondary-school years to JASA's entrepreneurship-education-and-training interventions. This might have influenced respondents' views about the desirability and feasibility of an entrepreneurial career.

Secondly, the relationship between entrepreneurial career choice and the antecedents *need for achievement* and *tolerance of ambiguity* could not be investigated because of the inability of the selected instruments to measure these antecedents. The poor results obtained for need for achievement in terms of mean score and internal consistency could be attributed to Steers and Braunstein's (1976: 254) Measure of Manifest Needs being tailored for work settings rather than secondary school. Even though the researchers adapted the statements to suit a secondary-school environment, these adjustments might have been insufficient to make the statements sufficiently meaningful to secondary-school learners. The failure of the present analysis to identify *tolerance of ambiguity* as a distinct construct is an indication that Herman *et al.*'s (2010: 64) scale may not be suited for secondary-school settings. It may also suggest that *tolerance of ambiguity* is highly inter-related with any of the other factors, thereby increasing the difficulty of isolating it from other factors. Factor inter-correlation is a complex phenomenon that may give rise to analytical problems during factor analysis. Future research could identify more appropriate

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measurement instruments and undertake to empirically verify the relationship between these antecedents and *entrepreneurial career choice*.

Finally, as the Cronbach alpha for *role models: inspirational figure* and *locus of control* was lower than 0.70, the research recommends using the corresponding outcome with care and consider contextual effects.

Despite these limitations, this paper represents a starting point for building a theory of antecedents of entrepreneurial career choice. Future research efforts should attempt to: i) validate the conceptual framework of antecedents empirically making use of a different sample, in order to verify that the antecedents identified in this paper are generalisable to young people; ii) investigate the relationship between the economic factors of the conceptual framework of antecedents and entrepreneurial career choice, which can be achieved by comparing respondents from regions that differ in terms of these factors; and iii) explore the direction of the relationship between the antecedents identified in this study and entrepreneurial career choice, in order to investigate if there is a causal relationship between the two sets of variables.

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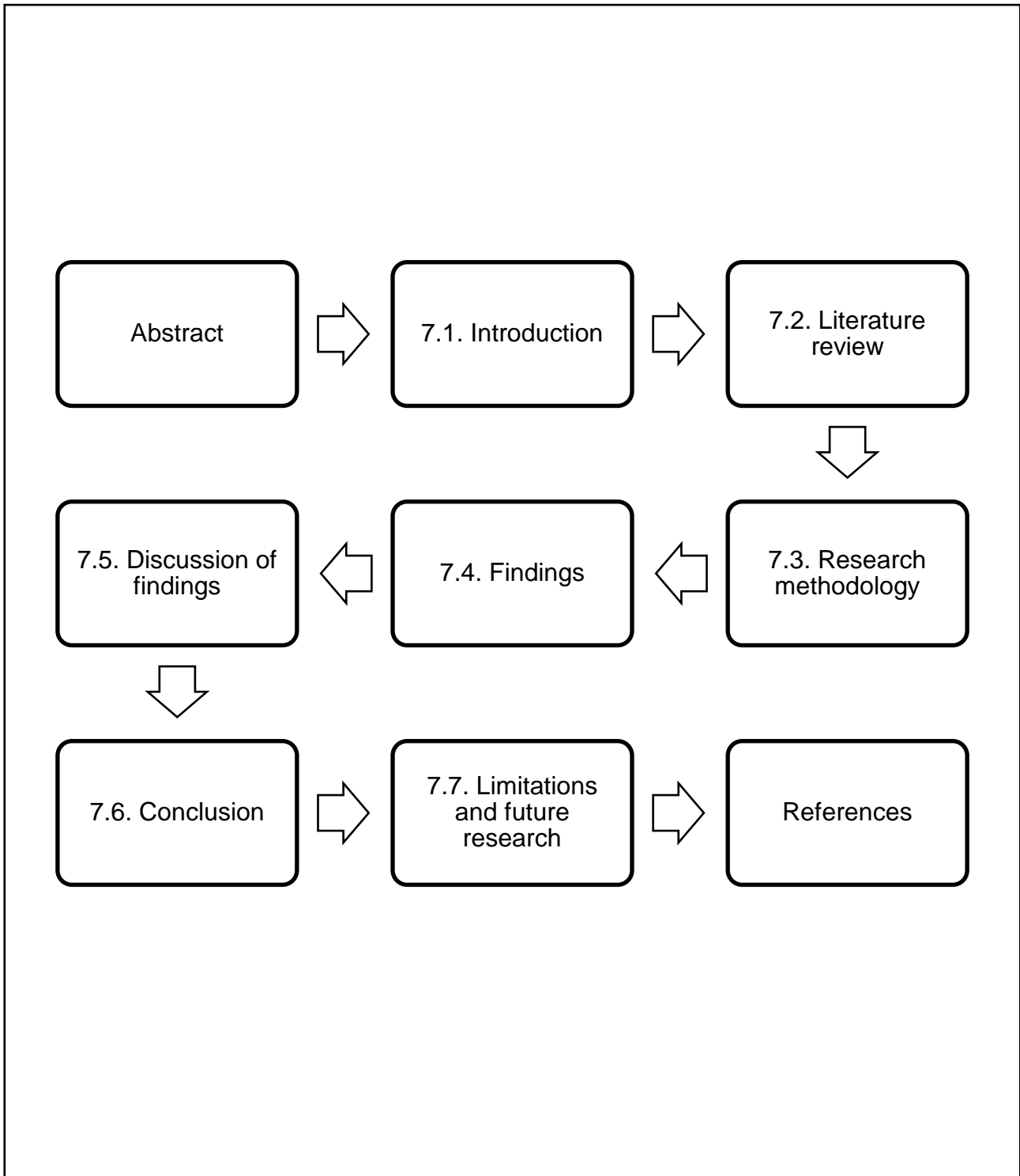
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**CHAPTER 7:
The status of youth entrepreneurship in South Africa**

CHAPTER 7 LAYOUT



CHAPTER 7

Paper 4

This chapter was submitted as an original manuscript.

Title: The status of youth entrepreneurship in South Africa

Journal: Journal of Developmental Entrepreneurship

Authors: Bignotti, A. & Le Roux, I.

Submission date: 2013-10-04

Status: Under review

Abstract

Research on young people's entrepreneurial career choice is limited in the number of studies and scope. In South Africa, studies on young people's entrepreneurial-career-choice intentions have produced mixed results over the years and across the age groups considered. This paper investigates secondary-school students' entrepreneurial-career-choice intentions and examines the relationship between these intentions and a set of individual and background variables. It also analyses the inter-relationships among respondents' individual and background variables. The majority (79%) of the respondents surveyed reported entrepreneurial-career-choice intentions. The results reveal that seven individual and background variables are related to the respondents' entrepreneurial-career-choice intentions: *family support, community support, early childhood experiences, work experience, prior start-up experiences, education and gender*. The paper also discusses the numerous inter-relationships found among the individual and background variables investigated. The relationships found in this study have important implications for educators and policy makers striving to foster young people's choice of an entrepreneurial career.

7.1. Introduction

Young people worldwide have been severely affected by unemployment, especially in recent years (Bell & Blanchflower, 2011: 245; Choudhry *et al.*, 2012: 77; ILO, 2013: 7). South Africa is no exception and its youth unemployment rate was recorded at 48 percent in 2012 (Turton & Herrington, 2013: 66). Given this situation, youth entrepreneurship has extensively been viewed as a possible solution to youth unemployment (Fatoki & Chindoga, 2012: 308; ILO & UNESCO, 2006: 5; Mlatsheni & Leibbrandt, 2011: 120; Schoof & Semlali, 2008: 1; Thurik *et al.*, 2008: 673; World Economic Forum, 2009: 7).

For the potential of youth entrepreneurship to be triggered, however, its main agent – the young person – needs to be motivated. The decision to become an entrepreneur can be regarded as a career choice (Douglas & Shepherd, 2002; Godsey & Sebora, 2011; Kolvereid, 1996a; Muofhe & Du Toit, 2011; Zellweger *et al.*, 2011). There is evidence that young people's entrepreneurial-career-choice intentions change across world regions (Davey *et al.*, 2011: 341; Turton & Herrington, 2013: 65; Viviers *et al.*, 2011: 31), according to age cohorts (Burger *et al.*, 2005: 91; Sieger *et al.*, 2011: 13) and even across individuals

of the same age group (Ahmed *et al.*, 2010: 18; Do Paço *et al.*, 2011: 28; Pihie, 2009: 341; Tkachev & Kolvereid, 1999: 275). The variability in youth entrepreneurial-career-choice intentions can be attributed partly to youth being widely defined as individuals aged between 15 and 35 years (African Union, 2006: 3; Chigunta *et al.*, 2005: 2).

Youth-entrepreneurship research has produced mixed results for South Africa too. Young people of different ages have been reported to exhibit different levels of entrepreneurial-career-choice intentions (Burger *et al.*, 2004, 2005; Farrington *et al.*, 2011, 2012; Mahadea *et al.*, 2011).

Research on youth entrepreneurship is limited (Mahadea *et al.*, 2011: 68; Schoof, 2006: 5). Even fewer studies on youth entrepreneurship include the investigation of the relationship between entrepreneurial career choice and people's individual and background variables. Addressing this research need can potentially shed light on some significant relationships between individual and background variables and entrepreneurial career choice.

This paper focuses on young people's entrepreneurial-career-choice intentions. Entrepreneurial career choice is defined in this paper as the decision to run one's own business as a career option.

This paper contributes to youth-entrepreneurship research by addressing three aims. Firstly, it conducts an empirical investigation of young people's entrepreneurial career choice, bringing research in this field to an updated status. Secondly, it examines the relationships between young people's entrepreneurial career choice and individual and background variables. Finally, it provides an analysis of the inter-relationships among young people's individual and background variables.

7.2. Literature review

7.2.1. Entrepreneurial-career-choice intentions of international youth

Worldwide levels of entrepreneurial-career-choice intentions vary across age groups and world regions. An international study of entrepreneurial intentions and activities reveals that most entrepreneurs fall into the 25-34-year-old age cohort (Xavier *et al.*, 2013: 29). An

investigation of international university students' career aspirations reports that, right after studies, 68 percent intend finding employment in a formal organisation, while only 11 percent plan to start a business (Sieger *et al.*, 2011: 14). Another study discloses that 47.5 percent of international university students wish to start their own business as a career option and 24 percent of them prefer working as employees, while 28.5 percent are unclear about their career intentions. University students from emerging economies appear to display higher entrepreneurial-career-choice intentions than those from advanced economies (Davey *et al.*, 2011: 341).

In particular, young people in Sub-Saharan Africa seem to have higher entrepreneurial-career-choice intentions than youth in other parts of the world. A study of young people's entrepreneurial-career-choice intentions in Sub-Saharan Africa reports that 56 percent of youth aged 18-34 intend to start their own business (Turton & Herrington, 2013: 65). The same investigation carried out in South Africa reveals some anomalies: only 15 percent of young people in the 18-34-year-old age group have entrepreneurial-career-choice intentions (Turton & Herrington, 2013: 65).

Recent studies on the entrepreneurial-career-choice intentions of young South Africans are covered in the following section.

7.2.2. Entrepreneurial-career-choice intentions of South African youth

Research on young South Africans' entrepreneurial-career-choice intentions is limited. Nevertheless, a few authors (Burger *et al.*, 2004, 2005; Fatoki & Chindoga, 2012; Gird & Bagraim, 2008; Mahadea *et al.*, 2011; Muofhe & Du Toit, 2011; Steenekamp *et al.*, 2011) have recently addressed this research gap. A study of students of South African universities revealed that 13 percent of students have entrepreneurial-career-choice intentions immediately after graduation, either in terms of starting their own business, founding a franchise company, owning an already-founded firm or starting as freelancers (Viviers *et al.*, 2011: 33). The proportion of students wishing to be employed in a formal organisation immediately after graduation was 64 percent. This scenario changes with the career planning horizon, since the same study shows that 44 percent of university students in South Africa intend pursuing an entrepreneurial career five years after graduation, while this figure is only 27 percent for those desiring to be employed (Viviers *et al.*, 2011: 35). It

appears, therefore, that young people aged 18 years and above have low entrepreneurial-career-choice intentions.

Students of South African secondary schools exhibit different levels of entrepreneurial-career-choice intentions. Burger *et al.* (2004, 2005) surveyed Grade-12 students aged between 17 and 19 years enrolled in schools in the Stellenbosch, Western Cape area and found that almost 44 percent of students prefer entrepreneurship to formal employment as a career option (Burger *et al.*, 2004: 194). They also found that 65 percent of Grade-12 students of secondary schools in the Stellenbosch area wish to start their own business in the future (Burger *et al.*, 2004: 197, 2005: 91). Mahadea *et al.* (2011) observed similar entrepreneurial-career-choice intentions. They surveyed Grade-10, -11 and -12 students, aged between 14 and 19 years, of secondary schools in Pietermaritzburg, KwaZulu-Natal, and reported that 78.5 percent of them have entrepreneurial-career-choice intentions. Similarly, Steenekamp *et al.* (2011) observed that 58 percent of Grade-10 students of secondary schools in the Sedibeng district, Gauteng, perceive entrepreneurship as a desirable career choice, although only 34 percent plan to start their own business immediately after completing school (Steenekamp *et al.*, 2011: 59).

Secondary-school students represent important role players, as people tend to form and stabilise their career interests during adolescence (Bandura *et al.*, 2001: 202; Fatoki & Chindoga, 2012: 309; Godsey & Sehora, 2011: 85; Lent & Brown, 1996: 313). This population constitutes the focus of analysis of this paper.

The following section provides some background on the individual and background variables that should be considered when discussing entrepreneurial career choice.

7.2.3. Individual and background variables related to entrepreneurial career choice

Individual variables may be related to people's entrepreneurial-career-choice decisions. Recent studies have found personal characteristics and elements to be related to entrepreneurial-career-choice decisions (Zhao *et al.*, 2010) and have advocated not to abandon the investigation of personal elements in entrepreneurship research (Hmieleski & Baron, 2009: 474; Hmieleski & Corbett, 2008: 493; Schjoedt & Shaver, 2012: 748).

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Need for achievement is an individual factor that is exhibited by individuals who seek challenging tasks, accept responsibility for them and demand feedback on their execution (Rauch & Frese, 2007: 358). A number of studies indicate that this factor is related to entrepreneurial career choice (Lee & Tsang, 2001; Rauch & Frese, 2007; Ryan *et al.*, 2011; Zeffane, 2013). There is evidence that also locus of control, understood as *internal control* and defined as people's attribution of the reasons for an occurrence to themselves (Rotter, 1966: 1), is a factor that plays a role in the choice of an entrepreneurial career (de Pillis & DeWitt, 2008; Gürol & Atsan, 2006; Hansemark, 2003; Kroeck *et al.*, 2010). Some studies have, however, concluded that tolerance of ambiguity may also represent an important individual factor (Entrialgo *et al.*, 2000; Murugesan, 2010; Wagener *et al.*, 2010). This factor corresponds to people's propensity to view challenging situations positively where sufficient information is lacking (Koh, 1996: 15). Finally, a number of studies have investigated entrepreneurial career choice from the point of view of gender, and have found that this individual characteristic plays a role in people's career choices (Kickul *et al.*, 2008; Matthews & Moser, 1996; Urban, 2010a; Wilson *et al.*, 2007).

Background variables may also be related to people's entrepreneurial-career-choice decisions. Social factors such as family support, community support and role models have been found extensively to be related to these decisions (BarNir *et al.*, 2011; Chang *et al.*, 2009; Davidsson & Honig, 2003; Gega *et al.*, 2011; Muofhe & Du Toit, 2011; Quan, 2012). There is also evidence that different types of experiences may be related to people's entrepreneurial-career-choice decisions, such as early childhood experiences (Cox & Jennings, 1995: 4; Drennan *et al.*, 2005: 7; Dyer & Handler, 1994: 72), work experience (Gabrielsson & Politis, 2012: 64; Mueller, 2006: 55) and prior start-up experiences (Davidsson & Honig, 2003: 321; Gird & Bagraim, 2008: 720; Rotefoss & Kolvereid, 2005: 120). The education factor, especially entrepreneurship education, has been viewed widely as playing an important role in the choice of an entrepreneurial career (Fayolle *et al.*, 2006; Liñán *et al.*, 2011; Muofhe & Du Toit, 2011). Additionally, some studies, although not many, regard peer influence as a potentially significant background factor (Bönte *et al.*, 2009; Falck *et al.*, 2012; Nanda & Sørensen, 2010). Finally, entrepreneurial career choice has been observed under the lenses of ethnic background, with some studies indicating that people from certain ethnic backgrounds are more entrepreneurially inclined than

others (Farrington *et al.*, 2012; Ugwu & Ugwu, 2012; Urban *et al.*, 2008; Wilson, Marlino & Kickul, 2004).

This paper focuses on entrepreneurial career choice and the above-mentioned individual and background variables. What follows is a description of the research methodology adopted.

7.3. Research methodology

7.3.1. Research questions and hypotheses

From the above discussion, the following emerge: i) studies on the entrepreneurial-career-choice intentions of young people are scarce; ii) not many studies include young people's individual and background variables in their analysis; and iii) young people's entrepreneurial-career-choice intentions vary considerably across age groups and geographic regions of investigation.

This paper investigates secondary-school students' entrepreneurial-career-choice intentions and their individual and background variables. The research questions that this paper aims to address and the associated hypotheses are outlined below.

1. *Research question.* Do secondary-school students differ in their entrepreneurial-career-choice intentions?

Hypotheses. H_01 : Secondary-school students have equal preferences for and against entrepreneurial career choice (H_A1 : There is a difference in secondary-school students' preferences for and against entrepreneurial career choice).

2. *Research question.* Are secondary-school students' entrepreneurial-career-choice intentions related to their individual and background variables?

Hypotheses. H_02 : Secondary-school students' entrepreneurial career choice is not related to their individual and background variables (H_A2 : Secondary-school students' entrepreneurial career choice is related to their individual and background variables).

3. *Research question.* Are secondary-school students' individual and background variables inter-related?

Hypotheses. H₀₃: Secondary-school students' individual and background variables are not inter-related (H_{A3}: Secondary-school students' individual and background variables are inter-related).

This paper reports specifically on entrepreneurial-career-choice intentions of South African students within the theoretical framework of antecedents of entrepreneurial career choice built in Paper 1 (Chapter 4) and Paper 2 (Chapter 5).

The individual and background variables initially considered in this paper are those identified in the literature. In addition to the variables already put forward in Paper 2, two biographical variables are investigated. These individual and background variables comprise six factors, five demographical variables and two biographical variables, and are outlined below.

- Factors: need for achievement, locus of control, tolerance of ambiguity, family support, community support and role models.
- Demographical variables: early childhood experiences, work experience, prior start-up experiences, education and peer influence.
- Biographical variables: gender and home language.

The primary unit of investigation of this study is entrepreneurial-career-choice intentions of secondary-school students; the secondary unit of investigation is the inter-relationships among the individual and background variables. The findings of this study are interpreted firstly in terms of the existence of differences in respondents' entrepreneurial-career-choice intentions. Secondly, the findings are reported in terms of the relationships existing among the individual and background variables examined in this study and between these and entrepreneurial career choice, with the objective of finding and describing important relationships.

7.3.2. *Instrument*

To investigate the above hypotheses, a questionnaire comprising statements that measure respondents' entrepreneurial-career-choice intentions and the thirteen individual and background variables listed above, was compiled.

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The questionnaire included 75 items. The questionnaire's statements were formulated starting from validated measurement instruments, which were then adapted to suit the sample of investigation. The questionnaire was subjected to a pilot test with a pilot sample of thirteen Grade-12 learners. The students found all the questionnaire's statements to be clear and the questionnaire easy.

Entrepreneurial career choice was determined by one statement, derived from similar statements (Davidsson, 1995: 12; Krueger, 1993: 11; Urban, 2006a: 95), where respondents were asked to state their entrepreneurial-career-choice intentions on a dichotomous "yes-no" scale.

The individual and background variables that are factors, namely, *need for achievement*, *locus of control*, *tolerance of ambiguity*, *family support*, *community support* and *role models*, were measured by the questionnaire on a five-point Likert scale.

- *Need for achievement* was measured by five items, taken from Steers and Braunstein's (1976: 254) Measure of Manifest Needs.
- *Locus of control* was measured by eleven items, selected from Loudon (1978: 293) and converted from questions to statements.
- *Tolerance of ambiguity* was measured by twelve items, as described by Herman *et al.* (2010: 64).
- *Family support* was measured by seven items, taken from Carr and Sequeira's (2007: 1097) Measure of Perceived Family Support.
- *Community support* was measured by ten items, sourced from Liao and Welsch (2005: 354).
- *Role models* were determined by twelve items, selected from Nauta and Kokaly (2001: 91).

Early childhood experiences, *work experience*, *prior start-up experiences*, *education* and *peer influence* are demographical variables and were each determined by categorical statements measured on a nominal scale. The biographical variables *gender* and *home language* were measured following the same approach.

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The statements measuring *entrepreneurial career choice*, *need for achievement*, *tolerance of ambiguity*, *family support*, *community support* and *role models* belong to validated set of items with reliability scores of Cronbach $\alpha > 0.70$, considered an acceptable level of reliability (George & Mallery, 2003: 231). The items measuring *locus of control* correspond to a set of statements with Cronbach $\alpha = 0.61$, which was deemed usable. The validity of the measurement instrument was analysed by five experts in the field, following one of the approaches suggested by Diamantopoulos and Schlegelmilch (2004: 34).

7.3.3. Sample

The respondents of the study were selected through a convenience sampling technique. The respondents were secondary-school learners in Grades 10, 11 and 12, aged 16, 17 and 18, respectively. Respondents of 18 secondary schools, located in the Gauteng and Limpopo provinces in South Africa, took part in the study. This sample represents the unit of analysis of this study.

The questionnaire was administered to 859 secondary-school learners, 827 of whom completed the questionnaire adequately. This represents a response rate of 96%. The high response rate can be attributed to the facilitators in each school being motivated to conduct this research successfully, and because respondents were asked to complete the questionnaire during a class activity; thus in a controlled class environment.

Four-hundred-and-four respondents (49%) were secondary-school learners of schools collaborating with Junior Achievement South Africa (JASA), a non-profit organisation that conducts entrepreneurship-education-and-training interventions in South African secondary schools.

7.3.4. Statistical procedures

An exploratory factor analysis was conducted to support the verification of whether or not the constructs *locus of control*, *tolerance of ambiguity*, *community support* and *role models* represent distinct factors. The method chosen for the factor analysis was a maximum likelihood factor analysis with direct Quartimin. After selection, based on the items' contribution to the Cronbach alphas and their inter-correlation within each factor, and eliminating the items with low or double factor loadings, 24 of the original 45 items

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remained. After performing an oblique rotation on the data, the factor analysis suggested the existence of four factors, explaining 30% of the variance in the data set. Since the four factors that were found did not correspond to the four factors that the questionnaire items were supposed to measure, it was necessary to formulate new operational definitions. The factors *need for achievement* and *family support* were analysed separately through item analysis.

Based on the results of exploratory factor analysis and item analysis, a set of individual and background variables constitutes the object of investigation of this study. Table 7.1 highlights the individual and background variables examined in this study and their operational definitions.

Table 7.1: Individual and background variables considered in this study

Factors	Description	No. of items	Cronbach alpha
Locus of control	People's perception that they are the determinants of the occurrences in their lives	6	0.54
Role models: guidance	People's perception that they have someone that supports them in their career and life decisions	6	0.76
Role models: inspirational figure	The presence of someone that inspires people in their career pursuits	4	0.66
Family support	The perceived support received from the family in starting a business	7	0.76
Community support	The support that people perceive the community at large gives to entrepreneurs	8	0.71
Demographic variables	Description	No. of items	
Early childhood experiences	Early exposure to business activities	2	
Work experience	Having done paid work in the past	3	
Prior start-up experiences	Having attempted or helped someone to start a business	2	
Education	Level of education and having taken business courses	2	
Peer influence	Influence from peers with entrepreneurial intentions and/or an entrepreneurial family background	2	

Biographical variables	Description	No. of items
Gender	(Male or female)	1
Home language	(Afrikaans, English, African or other) (used as proxy for ethnic background)	1

Table 7.1 shows that secondary-school students distinguish between having role models that give them guidance and support in their career and life decisions and having role models that inspire them in their career pursuits.

To determine the relationship between the factors and entrepreneurial career choice, a t-test was performed. Considering that data generated for the demographical and biographical variables *early childhood experiences, work experience, prior start-up experiences, education, peer influence, gender* and *home language* are nominal, a chi-square test was required to examine the relationship between these antecedents and entrepreneurial career choice.

The inter-relationships between the factors were measured by Pearson correlation coefficients. To investigate the inter-relationships between the factors and the demographical and biographical variables, analysis of variance was performed.

7.4. Findings

The present section presents the findings of this study. Table 7.2 describes the sample respondents. In line with the overall South African population is the proportion of respondents who have an African vernacular language as home language. The majority of respondents (76%) were in Grade 11 at the time the questionnaire was administered, and 61% of respondents were taking business studies as a subject at school.

Table 7.2: Demographic data of respondents

Groups	Frequency	Percentage
<i>Gender</i>		
Male	335	40.6%
Female	491	59.4%
<i>Missing = 1</i>		
<i>Home language (indicating social background)</i>		
Afrikaans	161	19.5%
English	142	17.2%
African	409	49.4%
Other	115	13.9%
<i>Academic year (school grade)</i>		
Grade 10	110	13.3%
Grade 11	628	75.9%
Grade 12	89	10.8%
<i>Business studies as school subject</i>		
	504	60.9%

The results of respondents' entrepreneurial-career-choice intentions are shown in Table 7.3. Seventy-nine percent of respondents stated that they consider starting a business as a career option.

Table 7.3: Entrepreneurial career choice distribution of respondents

"I consider running my own business as an employment option for me after school/university."	Frequency	Percentage
YES	651	78.8%
NO	175	21.2%
<i>Missing = 1</i>		

To compare respondents who consider running their own business as a career option and those who do not in terms of each of the individual and background factors, an independent-group t-test was run. Table 7.4 summarises the results, showing that

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respondents who chose an entrepreneurial career scored significantly high ($p < 0.01$) in *family support* and *community support* but not in *locus of control* and *role models*.

Table 7.4: Comparison of means across respondents choosing for or against an entrepreneurial career

t-test	Entrepreneurial career choice				t-test p value
	"I consider running my own business as an employment option for me after school/university."				
	YES		NO		
	Mean	Std Dev	Mean	Std Dev	
Locus of control	3.36	0.67	3.42	0.71	0.3045
Role models: guidance	3.94	0.72	3.84	0.75	0.1005
Role models: inspirational figure	3.38	0.90	3.29	0.85	0.2263
Family support	3.78	0.55	3.45	0.56	<0.0001**
Community support	3.89	0.54	3.66	0.59	<0.0001**

** significant at 1% level; * significant at 5% level

The relationship between entrepreneurial career choice and the demographical and biographical variables *early childhood experiences*, *work experience*, *prior start-up experiences*, *education*, *peer influence*, *gender* and *home language* was examined through a chi-square test of association. Table 7.5 presents the chi-square test results for these variables. Table 7.5 shows that the following demographical and biographical variables are related to entrepreneurial career choice: *early childhood experiences*, *prior start-up experiences*, *education* and *gender*. Differences appeared for the relationship between entrepreneurial career choice and the *work-experience* items.

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Table 7.5: Relationship between entrepreneurial career choice and demographical and biographical variables

Demographical variables	Statement	DF	Chi-square value	Pr<	ECC^a relationships
Early childhood experiences	"I have worked in a business."	1	10.1211	0.0015**	YES
Early childhood experiences	"I have sold goods and services."	1	9.0478	0.0026**	YES
Work experience	"I have done a holiday job."	1	8.3865	0.0038**	YES
Work experience	"I have worked in a part-time job such as waiting."	1	2.6352	0.1045	NO
Work experience	"I have worked in my parents' business."	2	11.4592	0.0032**	YES
Prior start-up experiences	"I have attempted to start a business."	1	63.9869	<0.0001**	YES
Prior start-up experiences	"I have helped someone to start a business."	1	10.9710	0.0009**	YES
Education (academic year)	(Grade 10, 11 or 12)	2	6.3530	0.0417*	YES
Education (business studies)	(Taking business studies as a school subject)	1	25.9620	<0.0001**	YES
Peer influence	"My friends /classmates want to start a business."	2	4.7408	0.0934	NO
Peer influence	My friends /classmates have parents and/or relatives that run their own business."	2	0.2021	0.9039	NO
Biographical variables					
Gender	(Male or female)	1	7.0845	0.0078**	YES
Home language	(Afrikaans, English, African or other)	3	4.5274	0.2099	NO

^a Entrepreneurial career choice

** significant at 1% level; * significant at 5% level

Table 7.6 reports a cross-tabulation of frequencies for entrepreneurial career choice and the items that were significantly related with it. Although percentages should be compared to the actual distribution of the sample respondents in the different groups of comparison,

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Table 7.6 reveals some meaningful relationships which will be discussed in the *discussion of findings* section.

Table 7.6: Percentage frequencies for entrepreneurial career choice and related demographical and biographical variables

		Entrepreneurial career choice "I consider running my own business as an employment option for me after school/university."	
		YES	NO
Early childhood experiences "I have worked in a business."	YES	48.69% ^a	35.23%
	NO	51.31%	64.77%
Early childhood experiences "I have sold goods and services."	YES	70.97%	59.09%
	NO	29.03%	40.91%
Work experience "I have done a holiday job."	YES	52.07%	39.77%
	NO	47.93%	60.23%
Work experience "I have worked in my parents' business."	YES	34.72%	21.59%
	NO	45.93%	52.84%
	n.a.*	19.35%	25.57%
Education "I am currently in grade:"	10	14.59%	8.52%
	11	75.58%	77.27%
	12	9.83%	14.20%
Education "I take EMS (Economic and Management Sciences) as a subject."	YES	65.44%	44.32%
	NO	34.56%	55.68%
Prior start-up experiences "I have attempted to start a business."	YES	68.82%	35.80%
	NO	31.18%	64.20%
Prior start-up experiences "I have helped someone to start a business."	YES	31.49%	18.75%
	NO	68.51%	81.25%
Gender "My gender is:"	MALE	42.92%	31.82%
	FEMALE	57.08%	68.18%

^a read as: of those that have entrepreneurial intentions, 49% have worked in a business.

* not applicable because respondents' parents don't run their own business.

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Turning to the investigation of inter-relationships between the individual and background variables, this study firstly examined the relationship between the factors using a Pearson correlation test. Table 7.7 reports the Pearson correlation coefficients among *locus of control*, *role models: guidance*, *role models: inspirational figure*, *family support* and *community support*. It shows that the only correlation that was not significant is between *locus of control* and *community support*.

Table 7.7: Correlation between factors – Pearson correlation coefficients

		F1	F2	F3	F4	F5
Locus of control (F1)	<i>r</i>	1.0000				
	<i>p</i>					
Role models: guidance (F2)	<i>r</i>	0.2007	1.0000			
	<i>p</i>	<0.0001**				
Role models: inspirational figure (F3)	<i>r</i>	0.0812	0.2990	1.0000		
	<i>p</i>	0.0196*	<0.0001**			
Family support (F4)	<i>r</i>	0.0816	0.3390	0.1815	1.0000	
	<i>p</i>	0.0189*	<0.0001**	<0.0001**		
Community support (F5)	<i>r</i>	-0.0622	0.2720	0.2266	0.3368	1.0000
	<i>p</i>	0.0737	<0.0001**	<0.0001**	<0.0001**	

** significant at 1% level; * significant at 5% level

To investigate the relationships between the individual and background variables that are factors and those that are demographical and biographical in nature, an ANOVA was performed. Tables 7.8–7.12 describe the ANOVA results in terms of each of the individual and background factors investigated.

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Table 7.8: Analysis of variance for *locus of control* and demographical and biographical variables

	Source	DF	Sum of squares	Mean square	F value	Pr>F
	Model	20	35.26	1.76	1.80	0.0169*
	Error	804	786.40	0.98		
	Corrected Total	824	821.65			
Education "I am currently in grade:"		2		3.32	3.39	0.0341*
Peer influence "My friends /classmates have parents and/or relatives that run their own business."		2		4.53	4.63	0.0317*
Gender		1		3.16	3.23	0.0400*

** significant at 1% level; * significant at 5% level

As shown in Table 7.8, *locus-of-control* levels varied only according to academic year, having peers with entrepreneurial family background and gender, albeit these relationships were not highly significant. The relationship between *locus of control* and academic year, having peers with entrepreneurial family background and gender thus appears not to be strong.

Table 7.9: Analysis of variance for *role models: guidance* and demographical and biographical variables

	Source	DF	Sum of squares	Mean square	F value	Pr>F
	Model	20	50.29	2.51	2.62	0.0001**
	Error	804	770.89	0.96		
	Corrected Total	824	821.18			
Work experience "I have worked in my parents' business."		2		3.41	3.55	0.0290*
Peer influence "My friends /classmates have parents and/or relatives that run their own business."		2		3.99	4.16	0.0160*
Gender		1		18.33	19.12	<0.0001**

** significant at 1% level; * significant at 5% level

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Table 7.9 shows that that the perceptions of the existence of role models that provide guidance differed in terms of having worked in the family business, having peers with entrepreneurial family background, and gender. A highly significant relationship existed only between *role models: guidance* and *gender*. female respondents scored significantly higher than male respondents in *role models: guidance*.

Table 7.10: Analysis of variance for *role models: inspirational figure* and demographical and biographical variables

	Source	DF	Sum of squares	Mean square	F value	Pr>F
	Model	20	62.76	3.14	3.32	<0.0001**
	Error	804	759.32	0.94		
	Corrected Total	824	822.07			
Work experience "I have worked in my parents' business."		2		3.61	3.82	0.0223*
Prior start-up experiences "I have attempted to start a business."		1		9.76	10.34	0.0014**
Home language (Afrikaans, English, African, other)		3		3.40	3.60	0.0133*

** significant at 1% level; * significant at 5% level

With respect to role models in terms of inspirational figure (Table 7.10), this factor varied in terms of having worked in the family business, having attempted to start a business and home language. In particular, a highly significant relationship was found between having attempted to start a business and *role models: inspirational figure*: respondents who had attempted to start a business had higher level of *role models: inspirational figure* than those without this type of prior start-up experience. Having worked in the family business and home language were not related with *role models: inspirational figure* strongly.

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Table 7.11: Analysis of variance for *family support* and demographical and biographical variables

	Source	DF	Sum of squares	Mean square	F value	Pr>F
	Model	20	134.37	6.72	7.86	<0.0001**
	Error	804	687.52	0.86		
	Corrected Total	824	821.89			
Work experience "I have worked in a part-time job such as waiting."		1		4.46	5.22	0.0226*
Work experience "I have worked in my parents' business."		2		2.86	3.35	0.0356*
Prior start-up experiences "I have attempted to start a business."		1		13.40	15.67	<0.0001**
Prior start-up experiences "I have helped someone to start a business."		1		7.27	8.50	0.0036**
Peer influence "My friends /classmates want to start a business."		2		6.09	7.12	0.0009**

** significant at 1% level; * significant at 5% level

Table 7.11 shows that *family support* had a highly significant relationship with having attempted or helped someone to start a business and having peers who want to start a business. More specifically, *family support* was higher for respondents who had attempted to start a business or had helped someone in this endeavour than for those who did not have prior start-experiences in terms of starting their own business or helping others to start a business. Respondents with peers who want to start a business had higher perceived *family support* than those whose peers did not want to start a business and those who were not sure about their peers' entrepreneurial intentions. The relationship between *family support* and having worked in a part-time job or in their parents' business was not strong.

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Table 7.12: Analysis of variance for *community support* and demographical and biographical variables

	Source	DF	Sum of squares	Mean square	F value	Pr>F
	Model	20	264.39	13.22	19.05	<0.0001**
	Error	804	557.78	0.69		
	Corrected Total	824	822.17			
Prior start-up experiences "I have attempted to start a business."		1		6.90	9.94	0.0017**
Education "I take EMS (Economic and Management Sciences) as a subject."		1		2.72	3.93	0.0478*
Gender		1		26.14	37.68	<0.0001**
Home language (Afrikaans, English, African, other)		3		27.46	39.58	<0.0001**

** significant at 1% level; * significant at 5% level

The perception of the level of *community support* (Table 7.12) varied with having attempted to start a business, taking business studies at school, gender and home language. The relationship between *community support* and taking business studies at school was, however, not strong. Respondents who had attempted to start a business had higher perceptions of *community support* than those who did not enjoy this type of prior start-up experience. Female respondents exhibited more perceived *community support* than male respondents. In terms of home language, the respondents with the highest community support scores had an African or "other" language as their home language; respondents whose home language was English or Afrikaans had lower community-support scores.

7.5. Discussion of findings

The present section discusses the findings critically in answer to the hypotheses of this study.

7.5.1. Entrepreneurial-career-choice intentions

Seventy-nine percent of respondents indicated that they consider running their own business as a career option. H_01 can be rejected and H_{A1} accepted. This finding is in line with the results of recent studies investigating secondary-school students' entrepreneurial-career-choice intentions in South Africa. Mahadea *et al.* (2011), for instance, surveyed Grade-10, -11 and -12 students in South Africa and reported that 78.5% of respondents had entrepreneurial-career-choice intentions. Studies dating back to the previous decade, however, do not observe the same levels of entrepreneurial-career-choice intentions. Burger *et al.* conducted an investigation of Grade-12 students and found that 44% of students prefer a career in entrepreneurship to a career in the corporate sector (Burger *et al.*, 2004: 194), and that 65% of students wish to start their own business in the future (Burger *et al.*, 2004: 197, 2005: 91).

Hence, it appears that a positive shift in entrepreneurial-career-choice intentions has occurred over the last decade in the relevant population, a change which had already happened at the turn of this century. Authors that conducted research in this field in the previous decade had already advocated for a fine-tuning of entrepreneurship education in secondary schools in order to foster students' propensity to be self-employed (Burger *et al.*, 2004: 204; Le Roux *et al.*, 2004: 50). In particular, Le Roux *et al.* (2004: 50) suggested that the Economic and Management Science (EMS) curriculum implemented in South African secondary schools should go hand in hand with teachers that are knowledgeable about entrepreneurship, in order for learners to better internalise the content of this curriculum and develop an entrepreneurial orientation. The increase in entrepreneurial-career-choice intentions could signify that teachers have been fulfilling this role over the past decade. Additionally, students might have been influenced positively by the government-lead propaganda found in South Africa about self-employment and its job-creation potential (South Africa, Department of Trade and Industry, 2005; Zuma, 2012).

7.5.2. *Relationships between entrepreneurial-career-choice intentions and individual and background variables*

This study found that entrepreneurial-career-choice intentions are related to the following individual and background variables: *family support, community support, early childhood experiences, work experience, prior start-up experiences, education and gender*. H_02 is thus rejected and H_{A2} accepted.

A closer analysis reveals some important relationships between entrepreneurial-career-choice intentions and individual and background variables. *Family support and community support* are the only factors that were found to be related to entrepreneurial-career-choice intentions. It appears that the perceived support received from the family and the support found in the community with regard to starting a business are significant factors for those considering a possible career in entrepreneurship. Other recent studies support the existence of a relationship between entrepreneurial career choice and family support (Chang *et al.*, 2009; Gega *et al.*, 2011; Latha & Murthy, 2009; Siqueira, 2007) and community support (Davidsson & Honig, 2003; Quan, 2012; Tas *et al.*, 2012; Todd, 2012).

Students' reliance on others for support appears to be more important in this life stage than having role models and individual characteristics such as locus of control. In fact, the factors *locus of control, role models: guidance and role models: inspirational figure* were not related to respondents' entrepreneurial-career-choice intentions. Regarding *locus of control*, it can be concluded that students' perceived control over the occurrences in their lives does not contribute to the understanding of their entrepreneurial-career-choice intentions. This finding is in contrast with other studies, both past and recent, on the relationship between locus of control and entrepreneurial career choice (de Pillis & DeWitt, 2008; Entrialgo *et al.*, 2000; Gürol & Atsan, 2006; Hansemark, 2003; Kroeck *et al.*, 2010), although these studies were focused on older populations. With regard to *role models*, both past and recent research support the relationship between this factor and entrepreneurial career choice (BarNir *et al.*, 2011; Chlosta *et al.*, 2010; Muofhe & Du Toit, 2011; Nauta & Kokaly, 2001). The results of this study disagree with the consensus found in the literature for the relationship between role models and entrepreneurial career choice. This could be attributed to the secondary-school sample of investigation used in this study, which differs from most other studies. Other studies focusing on secondary-school

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students, however, postulate a positive relationship between role models and entrepreneurial-career-choice intentions (Athayde, 2009; Evans, 2009). The different results for this relationship found in this study could be ascribed to students' distinguishing between role models in terms of guidance and role models in terms of inspirational figure. It is possible that the two types of role models separately are not related to entrepreneurial career choice, but that, if combined, they could be related to entrepreneurial-career-choice intentions.

In terms of demographical and biographical variables, the majority of Grade-10 students had entrepreneurial-career-choice intentions, while the majority of Grade-11 and -12 students did not express the same intentions. This finding can be an indication of the fact that students are more idealistic about the entrepreneurial career in their early years of secondary school. By the time they reach Grade-12, however, their preferences for entrepreneurship as a career options subside, perhaps owing to greater awareness of the difficulties faced by entrepreneurs in their community. More students who take business studies at school expressed entrepreneurial-career-choice intentions than those who do not take this subject at school. This result signifies that the current secondary-school curriculum seems to contribute to the formation of students' entrepreneurial-career-choice intentions. This finding is in line with the earlier assumption that the positive shift in entrepreneurial intentions can be ascribed to an increase in the effectiveness of the delivery of the EMS curriculum currently in place. It also supports past and recent research on the relationship between entrepreneurship education in secondary schools and entrepreneurial career choice (Athayde, 2009; Peterman & Kennedy, 2003; Sánchez, 2013).

This study reveals that entrepreneurial career choice is also related to activities and experiences that happen outside of the school. A greater number of respondents who were involved in some form of trade (selling goods and services), who worked during holidays, assisted in the family business or in some other business, viewed entrepreneurship as a possible career path for them, compared to respondents who had not had these experiences. The same results were obtained by other authors on these relationships (Drennan *et al.*, 2005; Gabrielsson & Politis, 2009; Mueller, 2006; Nair & Pandey, 2006). It seems that performing activities related with trade during their childhood

and doing paid work in their spare time enhances positive perceptions of an entrepreneurial career. These activities may contribute to minimizing students' apprehension of a career they are not acquainted with and of risking their own finances in trade and business activities. Conversely, working part-time was not related to entrepreneurial-career-choice intentions. It can be assumed that working part-time exposes young people to a white-collar mentality that is more congruent with seeking employment in a formal organisation.

Respondents with *prior start-up experiences* such as having attempted or helped someone to start a business were more inclined to choosing entrepreneurship as a career than those without these experiences. Davey *et al.* (2011: 343) and Gird and Bagraim (2008: 720) report the same results for university students. Exposure to venture-start-up activities may contribute to making young people aware of the lucrative prospects of this career and to diminishing their fear of failure in running their own business.

In terms of *gender*, taking into account that 41% of respondents were male and 59% were female, a greater relative proportion of male respondents indicated that they have entrepreneurial-career-choice intentions, while a greater relative proportion of female students made a choice against following an entrepreneurial career path. This finding may be related to the fact that people attribute masculine features to the entrepreneurial career. These results are in line with other studies that observed males having higher entrepreneurial-career-choice intentions than females (Urban, 2010a; Wilson *et al.*, 2004: 184). Similarly, other studies have found no statistically-significant differences in entrepreneurial intentions according to gender (Farrington *et al.*, 2012; Göksel & Aydintan, 2011).

7.5.3. *Inter-relationships among individual and background variables*

The present analysis revealed the existence of an intricate network of relationships among the individual and background variables investigated. H_{03} is thus rejected and H_{A3} accepted. All of the individual and background variables represented by factors inter-correlated, the only exception being that there was no relationship between *locus of control* and *community support* (see Table 7.7). It is worth noting that *locus of control* correlated significantly with *family support*, *community support* and both types of *role*

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models. This could signify that the support received by the family and the community and the presence of role models that mentor and inspire students, may contribute to their confidence and create a feeling that they are in control of the outcomes of their actions.

The inter-relationships between the factors and the demographical and biographical variables are numerous. They are discussed according to the demographical or biographical variable in question.

- *Education*. Respondents' locus-of-control levels increased with their respective academic year. It appears that, the more young people undergo schooling, the more they feel in control of the occurrences in their lives. Taking business studies as a subject in school was related to the amount of support students find in their community; indicating that taking business studies acquaints them with the support structures available for prospective entrepreneurs.
- *Work experience*. Higher levels of family support and of the perception of the presence of role models, both in terms of mentors and inspirational figures, were related to respondents' having worked in their parents' business. It can be assumed that, as young people work alongside their parents, they develop greater confidence in the support they may receive from their parents in starting their own business. The role models that they have in terms of guidance and inspiration are likely to be family members. Having worked part time was also associated with family support. Students who worked part time may have experienced support from their family in their work efforts, and may thus believe that they are likely to receive the same support from the family in the event of starting a business.
- *Prior start-up experiences*. Previous attempts at starting a business were related to respondents' having inspirational figures and perceived family and community support. It is postulated that students who have already attempted to start their own business may have done so based on their perceived support from family, community and from people who inspire them. Similarly, having helped someone start a business was found to be related to respondents' family support. This could signify that students who have been involved in founding someone else's firm are more likely to receive support from their family, as the family has already witnessed their start-up efforts and are possibly supportive of these activities.

- *Peer influence.* Respondents who have peers whose parents or relatives run their own business exhibited higher levels of locus of control and of the existence of role models they can rely on. This indicates that the entrepreneurial family background of their peers may prompt students to feel more confident about the control they have over the occurrences in their lives. The mentors they believe they can rely on are likely to be role models who are part of their peers' family. Moreover, having peers who want to start their own business appeared to be related with respondents' perceived family support. It can be assumed that a family that is exposed to the example of their children's entrepreneurially inclined peers may become supportive of their children's entrepreneurial intentions.
- *Home language.* Respondents' who speak an African language as their first language were found to have inspirational figures and perceived community support in higher degrees than English- and Afrikaans-speaking students. This finding can be attributed to the community's dimension being stronger in African culture. Accordingly, African students are likely to identify themselves with visible inspirational figures and benefit from a strong support system in their community. English and Afrikaans cultures are more individualistic and do not exhibit these cultural elements to the same degree.
- *Gender.* Female respondents displayed higher degrees of locus of control, perceived presence of mentors and community support than male respondents. Female respondents' higher locus-of-control levels indicate that females are more inclined to attribute the occurrences in their lives to themselves rather than to other people. This finding is in line with the observation that females have higher degrees of entrepreneurial self-efficacy than males (Kickul *et al.*, 2008: 329). Female students also seem to feel more supported than male students by the community and mentors: they have a stronger sense of community and are more aware of people they can rely on for advice. This may signify that male students perceive that they are more "isolated" in their career decisions and entrepreneurial pursuits than females.

7.6. Conclusion

Research on young people's entrepreneurial-career-choice intentions is limited. Moreover, most studies on this topic have neglected the analysis of individual and background factors that may be related to young people's entrepreneurial career choice. This paper aimed to address this research need by investigating the entrepreneurial-career-choice intentions of secondary-school students, the individual and background factors that are related with this career choice and the inter-relationships that exist between different individual and background variables.

This study observed that 79% of respondents had entrepreneurial-career-choice intentions, although these intentions decreased with each academic year. This indicates that there has been a positive shift in entrepreneurial-career-choice intentions over the last decade, perhaps as a result of improved delivery of the EMS curriculum and of the government-lead propaganda regarding entrepreneurship as a source of job creation.

Students' entrepreneurial-career-choice intentions appear to be related to taking business studies as a subject at school, as well as to the perceived support received from the family and the community and to a number of extra-curricular work and business-start-up experiences. For policy makers and educators, these findings indicate that fostering young people's choice of an entrepreneurial career involves not only adjusting the school curriculum, but also encouraging students' acquisition of some work and business-related experience during their spare time. Promoting students' engagement in these extra-curricular activities may increase their propensity towards entrepreneurship a career option beyond what has already been achieved. The findings also reveal that, at this stage in their lives, students rely on the perceived support from family and their community for career decisions, more than they depend on individual characteristics.

Finally, this study reports on a vast network of inter-relationships among the individual and background variables investigated. This indicates that entrepreneurial career choice is a complex phenomenon involving many variables. In light of this, policy makers should adopt a holistic view when striving to implement measures aimed at promoting the choice of an entrepreneurial career among the youth.

This paper makes three important contributions. Firstly, it continues the line of research on young people's entrepreneurial-career-choice intentions pursued by previous studies, and provides an updated view of the status of youth entrepreneurship in South Africa. Secondly, it incorporates the investigation of individual and background factors that are related to entrepreneurial-career-choice intentions, an aim which few studies in this field have undertaken. Finally, it examines the inter-relationships among individual and background variables and discusses their meaning and significance.

7.7. Limitations and future research

Firstly, forty-nine percent of respondents had been exposed to JASA's entrepreneurship-education-and-training interventions over the course of their secondary-school studies. This might have influenced respondents' inclinations towards entrepreneurship as a career option. Secondly, the lack of uniformity in the measurement scales used in the questionnaire limited the scope of statistical analyses that could be performed on the data. Finally, as the Cronbach alpha for *locus of control* and *role models: inspirational figure* was lower than 0.70, it is recommended using the corresponding outcome with care and to consider contextual effects.

Based on the decreasing level of entrepreneurial-career-choice intentions from Grade-10 to Grade-12 students, it is suggested that future research perform a longitudinal study to verify whether or not entrepreneurial-career-choice intentions decrease over years of schooling. Future research could also survey university students to assess whether or not their entrepreneurial-career-choice intentions are lower than secondary-school students', as has already been reported by some studies (Turton & Herrington, 2013: 65; Viviers *et al.*, 2011: 35). Thirdly, the direction of the relationships found in this study between entrepreneurial career choice and individual and background variables could be verified. Finally, given the complex network of relationships found among the individual and background variables investigated, future research could undertake to unravel these relationships by examining whether or not some variables are moderators or mediators.

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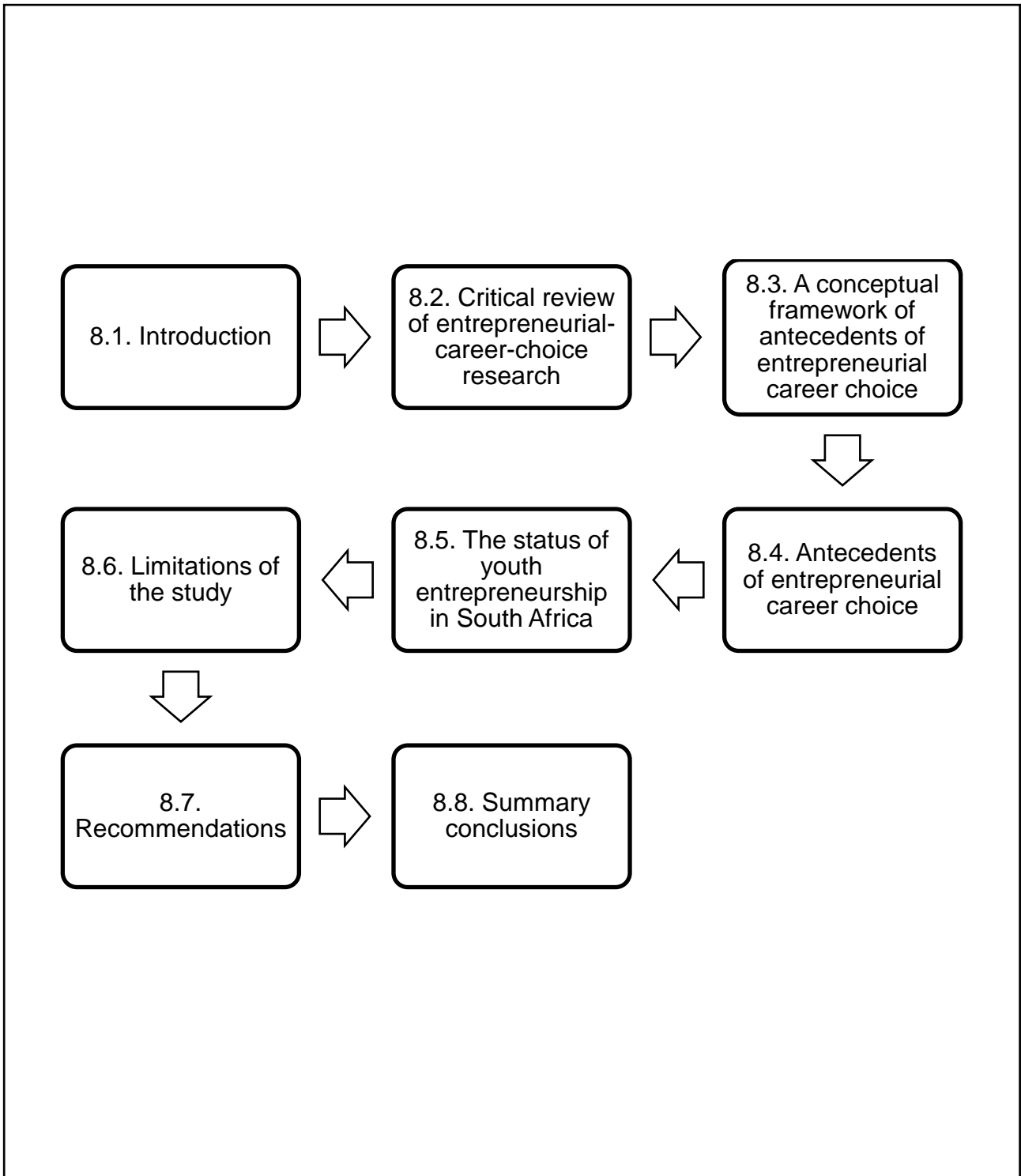
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**CHAPTER 8:
Conclusions and recommendations**

CHAPTER 8 LAYOUT



8.1. Introduction

Young people have been affected heavily by rising youth unemployment rates in recent decades, especially during the recent financial crisis and ensuing recession (Bell & Blanchflower, 2011: 245; Choudhry *et al.*, 2012: 77; ILO, 2013: 7). Against this backdrop, youth entrepreneurship has been viewed extensively, as a possible solution to the youth-unemployment pandemic (Fatoki & Chindoga, 2012: 308; ILO & UNESCO, 2006: 5; Mlatsheni & Leibbrandt, 2011: 120; Thurik *et al.*, 2008: 673; World Economic Forum, 2009: 7). Most young people, however, seem to prefer a career in a formal organisation to self-employment (Davey *et al.*, 2011: 341; Sieger *et al.*, 2011: 14), hindering the potential of youth entrepreneurship to create jobs and lower youth-unemployment levels from reaching its full extent.

It is disconcerting to observe low levels of youth entrepreneurial intentions, given the mounting levels of unemployment young people stand to face and the limited number of jobs available to them. This study situates itself in the broader investigation of why so few young people choose entrepreneurship as a career option. Hence, the research question underlying this study is: *What are the factors relating to entrepreneurial career choice in young people?* In this study, entrepreneurial career choice was defined as the decision to run one's own business as a career option. The personal and environmental factors relating to entrepreneurial career choice were defined as the *antecedents* of entrepreneurial career choice.

This study aims at building a comprehensive model of factors relating to entrepreneurial career choice. Firstly, it lays the foundations for building a theory of antecedents of entrepreneurial career choice by constructing a framework of antecedents starting from the extant literature in this field. Secondly, it subjects the framework to an empirical analysis in a sample of secondary-school students, in an effort to validate the framework and verify whether or not it represents a valid framework of antecedents. The data collection instrument was a questionnaire compiled mainly from validated questions available in the literature. The sample was made up of Grade-10, -11 and -12 secondary school learners, aged sixteen, seventeen and eighteen, respectively, and was selected using a convenience-sampling technique. Different statistical tests were employed to examine the

relationships between each antecedent factor of the framework and entrepreneurial career choice.

This chapter presents the conclusions and recommendations of this study. Firstly, it describes the results of the attempts to identify an existing theory or framework that outlines the antecedents of entrepreneurial career choice in an exhaustive manner. The outcome of this was a conceptual framework of antecedents of entrepreneurial career choice, which represents an extension of existing theory in this field. Secondly, it presents the results of an empirical investigation of secondary-school students' entrepreneurial-career-choice intentions and their antecedents. Thirdly, this study describes the relationships that were empirically found between entrepreneurial career choice and a set of individual and background variables, as well as important inter-relationships among these variables. Finally, this chapter ends with recommendations for future research.

8.2. Critical review of entrepreneurial-career-choice research

In order to investigate the antecedents of entrepreneurial career choice, this study sets out to identify, in the extant entrepreneurial-career-choice literature, a comprehensive theory or framework explaining the antecedents of entrepreneurial career choice extensively.

The first outcome of this literature-review analysis was the identification of three entrepreneurial-career-choice research streams: i) psychology of intentional human behaviour; ii) career choice; and iii) entrepreneurial intentions. The existing entrepreneurial-career-choice theories and framework were placed in one of the research streams. Hence, this literature-review analysis contributed enhanced clarity in the plethora of theories and frameworks in entrepreneurial-career-choice research. It is envisaged that scholars' awareness of this research-stream classification may help them choose which scholarly conversation (Huff, 1999) they wish to join.

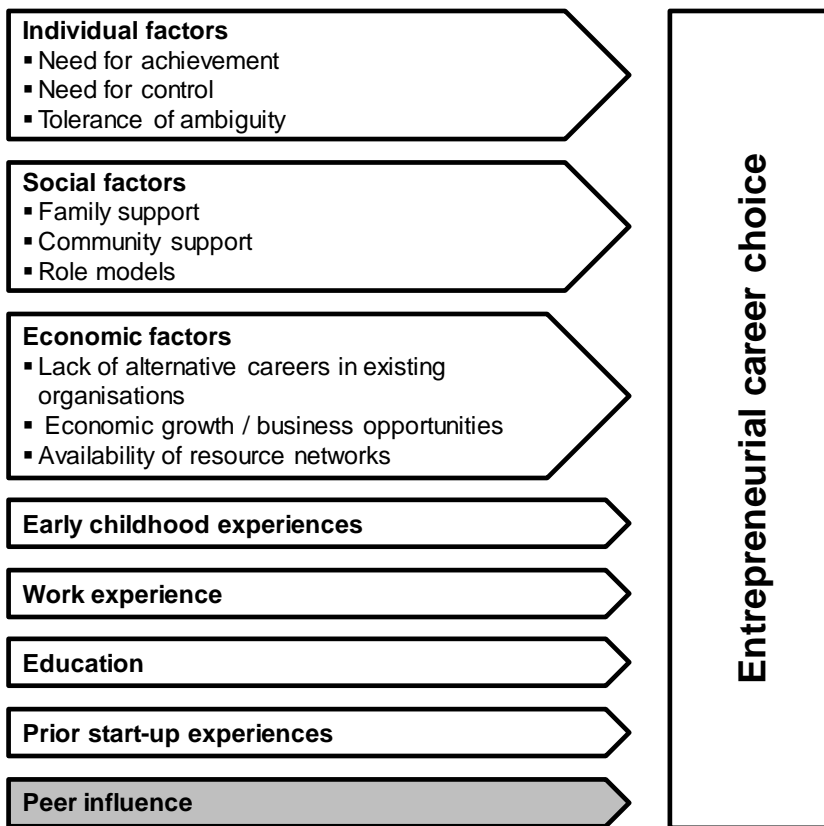
The second outcome of this critical theoretical review was the conclusion that Dyer's (1994) Model of Entrepreneurial Careers offers the most comprehensive classification of antecedents of entrepreneurial career choice found in the literature. It was also contended, however, that Dyer's framework has not been revised or challenged. It was therefore suggested that Dyer's framework be revised against more recent literature, in order to

verify that the antecedents included in this framework are, according to the literature, related to entrepreneurial career choice. The next section presents the results of this theoretical revision.

8.3. A conceptual framework of antecedents of entrepreneurial career choice

Departing from the factors in Dyer's Model of Entrepreneurial Careers that were deemed to represent antecedents of entrepreneurial career choice, a thorough literature search was conducted and literature support was found for the relationship between entrepreneurial career choice and the following antecedents: *need for achievement, locus of control, tolerance of ambiguity, family support, community support, role models, lack of alternative careers in existing organisations, economic growth/business opportunities, availability of resource networks, early childhood experiences, work experience, education and prior start-up experiences*. Based on the results of the literature search, a new antecedent, namely, *peer influence*, was added to Dyer's original set of antecedents.

The outcome of this literature-based analysis was a conceptual framework of antecedents of entrepreneurial career choice, which represents an extension of previous theory on the antecedents of entrepreneurial career choice. The conceptual framework of antecedents is illustrated in Figure 8.1.



Source: authors' own compilation

Figure 8.1: Conceptual framework of antecedents of entrepreneurial career choice

Based on this framework and the antecedents included, this study expresses the need to empirically validate the conceptual framework in order to verify whether or not it represents a valid model of antecedents of entrepreneurial career choice. To lay the foundation for this investigation, this study attempted to build a measurement framework for validating the conceptual framework empirically at an individual level. For this purpose, it conducted a second literature search in an effort to identify, in the literature, validated measurement instruments for each antecedent of the conceptual framework. These measurement instruments would be combined to compile a questionnaire in order to subject the conceptual framework to empirical investigation in a sample of young people. When validated measurement instruments were not available in the literature, ad-hoc measurement instruments were formulated. The economic-factors antecedents were excluded from this and future analyses because it was deemed inappropriate to measure and analyse them at an individual level: these are not antecedents that vary across individuals, but rather across regions or countries.

The outcome of this investigation was the drafting of a measurement framework to measure entrepreneurial career choice and eleven antecedents of the conceptual framework, namely, *need for achievement, locus of control, tolerance of ambiguity, family support, community support, role models, early childhood experiences, work experience, education, prior start-up experiences* and *peer influence*. Having contributed this measurement framework, this study proceeded to the empirical validation of the conceptual framework, described in the next section.

8.4. Antecedents of entrepreneurial career choice

Using a sample of 827 secondary-school students, this study conducted an investigation of the antecedents of the conceptual framework (Figure 8.1) that are related to entrepreneurial career choice. This analysis represents an attempt to empirically validate the conceptual framework of antecedents built in this study.

8.4.1. Findings

- The antecedents *family support, community support, early childhood experiences, work experience, prior start-up experiences* and *education* were related to respondents' entrepreneurial-career-choice intentions.
- Students in Grade 10 had higher entrepreneurial-career-choice intentions than students in Grade 11 and 12.
- In terms of *early childhood experiences* and *prior start-up experiences*, working in a business in one's spare time, selling goods and services, having attempted to start some form of business and helping others in their start-up efforts were related to respondents' entrepreneurial-career-choice intentions.
- Respondents' entrepreneurial-career-choice intentions were also related to experiences such as having had a holiday job and having worked in the family business.
- Entrepreneurial career choice was not related to *locus of control, role models* and *peer influence*.

8.4.2. *Interpretation of findings*

- It seems that students rely more on the perceived support received from the family or found in the community for their career decisions than they are driven by individual characteristics such as *locus of control*.
- The finding that *education* is related to entrepreneurial-career-choice intentions indicates that the current secondary-school curriculum appears to make a contribution towards fostering youth entrepreneurial intentions.
- Grade-10 students are more idealistic about a career in entrepreneurship than students in subsequent grades. Other studies testify to young people's viewing an entrepreneurial career in more idealistic terms than adults (Farrington *et al.*, 2011: 11). It is likely that Grade-11 and -12 students are more exposed than Grade-10 students to the reality of starting and running a business through the example of entrepreneurs present in their community. Consequently, they have a greater awareness of the difficulties faced in successfully running a business and, thus, may have lowered their expectations about the positive outcomes of following an entrepreneurial career.
- The exposure that secondary-school students get when they are involved in *early childhood* and *prior start-up experiences* may contribute to better acquainting students with business and boosting their confidence regarding their ability to be meaningfully and successfully self-employed. These findings are in line with previous studies on the relationship between entrepreneurial career choice and early childhood experiences (Cox & Jennings, 1995; Drennan *et al.*, 2005) and prior start-up experiences (Davey *et al.*, 2011; Davidsson & Honig, 2003; Gird & Bagraim, 2008).
- It can be assumed that students work in a paid job in their spare time to raise some capital, an activity that contributes to the development of an entrepreneurial mindset. Initially, this mindset is likely to be required to prompt young people to choose an entrepreneurial career. Additionally, the on-the-job experience they get while working may enhance their confidence in their capabilities to achieve successful outcomes, including starting up and running their own business. There is evidence that people who have accumulated some *work experience* are more prone

to choosing entrepreneurship as a career (Gabrielsson & Politis, 2012: 64; Mueller, 2006: 55).

- It appears that students' entrepreneurial-career-choice decisions are not affected by the degree of control they have over occurrences in their lives or by the presence of supporting or inspirational figures. This finding discords with previous studies, which report on *locus of control* (de Pillis & DeWitt, 2008; Gürol & Atsan, 2006; Kroeck *et al.*, 2010) and *role models* (Athayde, 2009; Chlosta *et al.*, 2010; Muofhe & Du Toit, 2011; Nauta & Kokaly, 2001) being related to entrepreneurial career choice. With regard to role models, this study has observed that students distinguish between role models in terms of having a mentor and role models in terms of having an inspirational figure. It can be assumed that, had the role-models construct not been subcategorised in this fashion, its relationship with respondents' entrepreneurial-career-choice intentions would have been stronger.
- Having peers with entrepreneurial intentions and having peers with an entrepreneurial family background do not seem to play a role in fostering positive dispositions towards entrepreneurship as a possible career. This signifies that the choice of an entrepreneurial career is a complex decision that students do not take lightly, simply because their peers come from an entrepreneurial family or express an inclination towards self-employment. Previous studies (Falck *et al.*, 2012; Nanda & Sørensen, 2010), however, observed that peers may exert an influence on people's entrepreneurial-career-decisions.

8.4.3. *Implications of findings*

- For policy makers and educators, the results imply that efforts to promote the choice of entrepreneurship as a career among the youth should not be focused entirely on adjusting the school curriculum. These efforts should also aim to provide young people with opportunities to gain work and business experience in their spare time, and to encourage them to seize these opportunities.
- Increasing the visibility of entrepreneurship as a respectable and viable career option in society may foster increased support to young people from the family and the community with regard to their entrepreneurial-career-choice decisions. This, in

turn, is likely to have positive effects on young people's entrepreneurial-career-choice intentions.

- The implications for theory are that, in building a theory of antecedents of entrepreneurial career choice, the antecedents *family support*, *community support*, *early childhood experiences*, *work experience*, *prior start-up experiences* and *education* should be considered.

8.5. The status of youth entrepreneurship in South Africa

This study sought to bring research on youth entrepreneurship to a new standpoint by investigating secondary-school students' entrepreneurial-career-choice intentions. This analysis also covered the investigation of possible relationships between entrepreneurial career choice and a set of individual and background variables, as well as possible relevant inter-relationships among these variables. Learners from South African secondary schools were the focus of this investigation.

8.5.1. Findings

- 79% of respondents indicated that they are likely to pursue an entrepreneurial career. Previous studies investigating secondary-school students in South Africa (Burger *et al.*, 2004, 2005; Mahadea *et al.*, 2011; Steenekamp *et al.*, 2011) observed similar results.
- Respondents who took business studies as a subject at school were more inclined towards following an entrepreneurial career path than those who did not take this subject at school.
- Besides the results on the relationships between entrepreneurial career choice and antecedents outlined in the previous section, *gender* showed to be related to respondents' entrepreneurial-career-choice intentions. In particular, a greater relative proportion of male respondents indicated that they had entrepreneurial-career-choice intentions, while a greater relative proportion of female respondents declared that they did not wish to pursue this career path.
- This analysis revealed an intricate network of relationships among the individual and background variables investigated. For the sake of brevity, only the

relationships that were deemed more relevant are reported and interpreted in this section.

8.5.2. *Interpretation of findings*

- Studies on entrepreneurial-career-choice intentions dating back to the previous decade report on lower levels of these intentions for secondary-school students (Burger *et al.*, 2004: 194, 2005: 91). It thus appears that a positive shift in entrepreneurial-career-choice intentions happened in the last ten years in the relevant population. The increase in the level of entrepreneurial intentions could be ascribed to enhanced delivery of the EMS curriculum in secondary schools by teachers that are more knowledgeable about entrepreneurship (Le Roux *et al.*, 2004: 50). It could also be the result of the government-lead propaganda found in South Africa about self-employment and its job-creation potential (South Africa, Department of Trade and Industry, 2005; Zuma, 2012).
- Another indication that the EMS curriculum is producing the intended results is the finding that more respondents who took business studies as a subject at school expressed entrepreneurial-career-choice intentions than those who did not study this subject. This result is also in line with research on the relationship between entrepreneurship education in secondary schools and entrepreneurial intentions (Athayde, 2009; Peterman & Kennedy, 2003; Sánchez, 2013).
- Male students' greater relative propensity to choose entrepreneurship as a career could be accredited to people's viewing of an entrepreneurial career as a male's domain requiring male attributes. Other studies have observed that males have higher entrepreneurial-career-choice intentions than females (Urban, 2010a; Wilson *et al.*, 2004: 184), although some authors have not found statistically-significant differences in entrepreneurial intentions according to gender (Farrington *et al.*, 2012; Göksel & Aydintan, 2011).
- Respondents' *locus-of-control* levels were related to their levels of perceived *family support*, *community support* and both types of *role models*. This indicates that the support found in the family and the community, and the presence of mentors and inspirational figures, may spur students on to having a greater confidence in their ability to control the occurrences in their lives.

- More respondents speaking an African language as their first language declared that they have inspirational figures and perceived community support than English- and Afrikaans-speaking respondents. This is in line with the community's dimension being stronger in African culture. It also signifies that students of an African ethnic background identify themselves with visible inspirational figures present in the community. These may be some of the reasons why people of African ethnic background have been found to exhibit higher entrepreneurial intentions than people from other ethnic groups (Farrington *et al.*, 2012: 13; Turton & Herrington, 2013: 65).
- Female respondents displayed higher degrees of locus of control, perceived presence of mentors and community support than male respondents. Female students thus appear to feel more in control of the occurrences in their lives, and there is evidence that females have higher entrepreneurial-self-efficacy levels than males (Kickul *et al.*, 2008: 329). Female students also seem to have a stronger sense of community support and of the possibility to rely on mentors for advice; male students may be more self-reliant.

8.5.3. *Implications of findings*

- In light of the intricate network of relationships observed in this analysis, it can be assumed that entrepreneurial career choice is a complex phenomenon that involves many variables. For theory, this implies that building a theory of antecedents of entrepreneurial career choice is an arduous endeavour.
- Policy makers and educators should be aware of the apparent positive results achieved by the current EMS curriculum and its delivery. Similarly, however, the significant relationships between respondents' entrepreneurial-career-choice intentions and a number of extra-curricular activities and experiences indicate, that focusing efforts to promote youth entrepreneurship exclusively on the school curriculum, may be a reductive approach.

8.6. Limitations of the study

This study is subject to a few constraints, mentioned below.

- During the first stage of this study, an extensive literature review was conducted in an effort to identify an existing comprehensive theory of antecedents of entrepreneurial career choice that could serve as a framework for the present investigation. Even though the underlying literature review was kept as broad and objective as possible, some important theories might have been overlooked and the researchers might have introduced some degree of subjectivity in the selection of sources to be content-analysed.
- The same limitations apply to the stage of the study that dealt with revising an existing framework of antecedents. Hence, the revised, conceptual framework of antecedents adopted in this study might not cover the whole spectrum of antecedents existing in the literature.
- The third stage of the study, concerned with building a measurement framework for the purpose of validating the conceptual framework of antecedents empirically, also employed a thorough literature search. The use of certain keywords in the literature search might have prevented the study from identifying the most robust measurement instruments for the antecedents of the conceptual framework.
- In the empirical validation of the conceptual framework of antecedents, the antecedent *need for achievement* reported a high mean score. This is an indication that this factor was subject to self-selection bias. Moreover, the low internal-consistency score obtained for this factor indicates that the measurement instrument used – Steers and Braunstein's (1976: 254) Measure of Manifest Needs – is not appropriate for a secondary-school setting. The same limitation applies to Herman *et al.*'s (2010: 64) scale, used to measure *tolerance of ambiguity*. The adjustments performed to make these measurement instruments meaningful for a secondary-school setting might have been insufficient.
- The Cronbach alphas for the factors *locus of control* and *role models: inspirational figure* were lower than 0.70. It is thus recommended using the results pertaining to these factors with care, taking contextual effects into account.

- With regards to the questionnaire used in empirical investigations, the lack of uniformity in the measurement scales limited the scope of statistical analyses that could be performed on the data.
- 49% of respondents had been exposed to JASA's entrepreneurship-education-and-training interventions during the course of their secondary-school years. This might have introduced some bias in the sample in terms of respondents' entrepreneurial-career-choice intentions.
- The study made use of a convenience sample of students from secondary schools in the Gauteng and Limpopo provinces of South Africa. This sample might not necessarily reflect the entire South African secondary-school context, and generalisation of the findings must be taken cautiously.
- Finally, this study focused on empirically verifying that a correlation relationship between entrepreneurial career choice and the antecedents of the conceptual framework exists. The direction of the relationships observed was not examined.

8.7. Recommendations

This study puts forward some recommendations, both for theory and practice.

8.7.1. *Recommendations for theory*

- Since this study made use of a convenience sample of secondary-school students, it is suggested that future research investigate the antecedents of entrepreneurial career choice in a random sample of learners.
- Based on the observation that entrepreneurial-career-choice intentions seem to decrease with the number of years of schooling, future research could also undertake to perform a longitudinal study, in order to verify that the decline in entrepreneurial intentions occurs over time.
- Given that some studies report on university students' entrepreneurial-career-choice intentions being lower than secondary-school students' (Turton & Herrington, 2013: 65; Viviers *et al.*, 2011: 35), it is suggested that future research conduct the same investigation in a sample of university students in order to confirm this claim.
- The finding that *family support, community support, early childhood experiences, work experience, prior start-up experiences, education and gender* are related to

students' entrepreneurial-career-choice intentions represents a starting point for building a theory of antecedents of entrepreneurial career choice, a research aim that future research could assume.

- For future investigations of the antecedents of entrepreneurial career choice, it is recommended improving the questionnaire in three ways. Firstly, measurement instruments for *need for achievement* and *tolerance of ambiguity* suited for a secondary-school setting need to be identified. Secondly, more reliable measurement instruments for *locus of control* and *role models: inspirational figure* should be employed. Finally, it is recommended that a questionnaire with all items measured on at least an interval scale be used, in order to allow for more statistical tests to be performed.
- Future research could also investigate the relationship between entrepreneurial career choice and the economic factors of the conceptual framework of antecedents. In order for these relationships to be examined, a cross-regional or cross-country investigation is suggested.
- Finally, future research may deepen the analysis of the relationships between entrepreneurial career choice and the antecedents of the conceptual framework. Firstly, the direction of the relationships between entrepreneurial career choice and the antecedents could be examined, in order to find possible causal relationships. Secondly, taking into consideration the intricate network of relationships among the individual and background variables investigated, future research could undertake to unravel these relationships by investigating if some of these variables mediate or moderate the relationship between entrepreneurial career choice and its antecedents.

8.7.2. *Recommendations for practice*

- The perceived support from the family and the community with regard to starting a business was significantly related to students' entrepreneurial-career-choice intentions. In their efforts to foster the choice of an entrepreneurial career among young people, policy makers should ensure that this type of support is available to them. As the support given by the family and the community cannot be controlled or imposed, higher levels of family and community support could be achieved

indirectly by giving more prominence to successful entrepreneurs in the media. Giving visibility to entrepreneurship as a desirable career may prompt members of the family and community to be supportive of this career path.

- A number of extra-curricular work and business-related activities were also significantly related to entrepreneurial career choice. Policy makers should not focus exclusively on adjusting the school curriculum in order to foster youth entrepreneurial intentions, but they should also foster extra-curricular activities such as selling goods and services, having a holiday job, assisting in the family business and helping others in their business start-up attempts. These activities appear to contribute to the development of entrepreneurial-career interests.
- The realisation that there has been a positive shift in students' entrepreneurial-career-choice intentions over the last decade could signify that the advocated-for improvement in the delivery of the EMS school curriculum has occurred. It is suggested that policy makers and educators attempt to identify what exactly has driven this positive shift, in order to further promote entrepreneurial career choice effectively among young people.

8.8. Summary conclusions

This study concludes that the antecedents *family support, community support, early childhood experiences, work experience, prior start-up experiences* and *education*, as well as the biographical variable *gender*, are related to secondary-school students' entrepreneurial-career-choice intentions. Seventy-nine percent of respondents indicated that they consider running their own business as a career option.

The findings imply that the EMS curriculum currently implemented in secondary schools seems to have produced the intended results. The positive shift in entrepreneurial-career-choice intentions over the last decade testifies to this fact. The results of this study also indicate that efforts to foster the choice of an entrepreneurial career among young people, should take the importance of family- and community support received, with regard to starting up a business, into consideration. Extra-curricular activities such as selling goods and services, working during holidays, assisting in the family business and helping others in their business start-up attempts should be encouraged, as they were significantly related to respondents' entrepreneurial-career-choice intentions.

CHAPTER 8

Conclusions and recommendations

The intricate network of relationships between entrepreneurial career choice and individual and background variables, and the inter-relationships among these variables, signify that entrepreneurial career choice is a complex phenomenon and that building a theory of antecedents of entrepreneurial career choice is an arduous endeavour.

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APPENDIX A:
Questionnaire

Questionnaire number

v1					
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THE CHOICE OF AN ENTREPRENEURIAL CAREER

Dear Respondent,

Thank you for giving up some of your precious time for this piece of research. Your contribution is fundamental.

The following questionnaire is part of a research study undertaken to investigate the choice of an entrepreneurial career among South African Grade-10, -11 and -12 students.

There are no right or wrong answers but it is important to indicate **your personal view and thinking** irrespective of what you may believe others will think.

It would be highly appreciated if you completed it as thoroughly as possible. All information will be treated as confidential and will only be used for academic purposes and reported as mathematical averages, variances and correlations.

Participation is voluntary and you may withdraw from participation in the study at any time and without any consequences. By completing this survey you

- **consent to take part in the research study (as mentioned above) by completing the attached questionnaire;**
- **understand that the data gathering will be confidential; and**
- **understand that the respondents will have access to the data and the results thereof.**

Completing the questionnaire should take you 20-30 minutes.

Thank you very much,

Alex Bignotti
 Doctoral Student in Entrepreneurship
 Department of Business Management
 University of Pretoria
 E-mail: alexbignotti@gmail.com
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 Chair in Entrepreneurship
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Instructions for completion:

Important definition: The choice of an entrepreneurial career refers to your choice of running your own business as a career option.

Initials: _____

APPENDIX A Questionnaire

Indicate whether you agree or disagree with the following statements. Please **take your time** to provide an **honest answer**.

You can express your preference by marking the appropriate box with a **X**

For office use only

	Statement	Yes	No				v	
1.	I consider running my own business as an employment option for me after school/university.	<input type="checkbox"/>	<input type="checkbox"/>				2	<input type="checkbox"/>

Indicate to what extent the following statements are true about you.

	Statement	1 Never	2 Seldom	3 Sometimes	4 Usually	5 Always	v	
2.	I take moderate risks (I stick my neck out to get ahead).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	<input type="checkbox"/>
3.	I try to perform better than my peers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	<input type="checkbox"/>
4.	I do my best work when my assignments are fairly difficult.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	<input type="checkbox"/>
5.	I try very hard to improve on my past performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	<input type="checkbox"/>
6.	I try to avoid any added responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	<input type="checkbox"/>

Indicate whether you agree or disagree with the following statements.

	Statement	1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree	v	
7.	I can be comfortable with nearly all kinds of people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	<input type="checkbox"/>
8.	I feel that most of the time my parents listen to what I have to say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9	<input type="checkbox"/>
9.	In the career path I am pursuing, there is someone I admire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	<input type="checkbox"/>
10.	I often feel that whether or not I do my homework this has little to do with the kind of grades I get.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11	<input type="checkbox"/>
11.	People I personally know have started new businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	<input type="checkbox"/>
12.	Young people are encouraged to be independent and start their own businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13	<input type="checkbox"/>
13.	I am the kind of person who believes that planning ahead makes things turn out better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14	<input type="checkbox"/>
14.	There is no one who supports me when I make career decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15	<input type="checkbox"/>

APPENDIX A Questionnaire

	Statement	1 Strongly disagree	2 Dis- agree	3 Neither agree nor disagree	4 Agree	5 Strongly agree	v	
15.	There is someone I can count on to be there if I need support when I make career choices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	<input type="checkbox"/>
16.	I like to surround myself with things that are familiar to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	<input type="checkbox"/>
17.	I believe that whether or not people like me depends on the way I act.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	<input type="checkbox"/>
18.	Many of my family and kin have started new businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	<input type="checkbox"/>
19.	I like parties where I know most of the people more than ones where all or most of the people are complete strangers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	<input type="checkbox"/>
20.	There is no one I am trying to be like in my career pursuits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	<input type="checkbox"/>
21.	There is someone who helps me weigh the pros and cons of the career choices I make.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	<input type="checkbox"/>
22.	I feel that it's really impossible to change my parents' mind about anything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23	<input type="checkbox"/>
23.	A good teacher is one who makes you wonder about your way of looking at things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	<input type="checkbox"/>
24.	State and local governments provide good support for those starting new businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25	<input type="checkbox"/>
25.	There is someone who tells or shows me general strategies for a successful life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26	<input type="checkbox"/>
26.	If given a choice, I will travel rather than vacation at home.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27	<input type="checkbox"/>
27.	Banks and other investors go out their way to help new businesses get started.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28	<input type="checkbox"/>
28.	I know of someone who has a career I would like to pursue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	<input type="checkbox"/>
29.	I feel that when good things happen they happen because of hard work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30	<input type="checkbox"/>
30.	I would like to live in a foreign country for a while.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31	<input type="checkbox"/>
31.	I have a mentor in my career field.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32	<input type="checkbox"/>
32.	I believe that my parents should allow me to make most of my decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33	<input type="checkbox"/>
33.	There are many examples of well-respected people who made a success of themselves starting a new business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34	<input type="checkbox"/>
34.	I feel that one of the best ways to handle most problems is just not to think about them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35	<input type="checkbox"/>
35.	The sooner we all acquire similar values and ideals the better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36	<input type="checkbox"/>
36.	I am often blamed for things that just aren't my fault.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37	<input type="checkbox"/>

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	Statement	1 Strongly disagree	2 Dis- agree	3 Neither agree nor disagree	4 Agree	5 Strongly agree	v	
37.	There is someone who supports me in the career choices I make.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	38	<input type="checkbox"/>
38.	A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39	<input type="checkbox"/>
39.	I usually feel that it's almost useless to try in school because most students are just plain smarter than I am.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	<input type="checkbox"/>
40.	Those with successful businesses get a lot of attention and admiration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41	<input type="checkbox"/>
41.	I can enjoy being with people whose values are very different from mine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42	<input type="checkbox"/>
42.	Other community groups provide good support for those starting new businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43	<input type="checkbox"/>
43.	What we are used to is always preferable to what is unfamiliar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	44	<input type="checkbox"/>
44.	I feel that most of the time it doesn't pay to try hard because things never turn out right anyway.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45	<input type="checkbox"/>
45.	There is no one particularly inspirational to me in the career path I am pursuing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	46	<input type="checkbox"/>
46.	There is no one who shows me how to get where I am going with my career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47	<input type="checkbox"/>
47.	A good job is one where what is to be done and how it is to be done are always clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48	<input type="checkbox"/>
48.	The local media does a good job covering local business people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49	<input type="checkbox"/>
49.	I avoid settings where people don't share my values.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50	<input type="checkbox"/>
50.	There is someone I am trying to be like in my career pursuits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	51	<input type="checkbox"/>
51.	Most of the leaders in this community are people who own businesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	52	<input type="checkbox"/>

APPENDIX A Questionnaire

Indicate how different people feel about your starting a business.

	Statement	1 Extremely negative	2 Negati- ve	3 Neither positive nor negative	4 Positi- ve	5 Extreme- ly positive	v	
52.	My parent(s) feel _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	53	<input type="checkbox"/>
53.	My close friends feel _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	54	<input type="checkbox"/>
54.	My co-students feel _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	55	<input type="checkbox"/>
55.	My brother/sister feels _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	56	<input type="checkbox"/>
56.	My neighbour feels _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	57	<input type="checkbox"/>
57.	In general my acquaintances feel _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	58	<input type="checkbox"/>
58.	In general my relatives feel _____ about my starting a business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	59	<input type="checkbox"/>

Indicate to what extent the following statements are true about you.

	Statement						v	
59.	I have attempted to start a business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				60	<input type="checkbox"/>
60.	My friends / classmates want to start a business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not sure <input type="checkbox"/>			61	<input type="checkbox"/>
61.	I have helped someone to start a business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				62	<input type="checkbox"/>
62.	I have done a holiday job.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				63	<input type="checkbox"/>
63.	I have worked in a part-time job such as waitering.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				64	<input type="checkbox"/>
64.	My friends / classmates have parents and/or relatives that run their own business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not sure <input type="checkbox"/>			65	<input type="checkbox"/>
65.	I have worked in a business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				66	<input type="checkbox"/>
66.	I have worked in my parents' business.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	n.a.* <input type="checkbox"/>			67	<input type="checkbox"/>
67.	I have sold goods and services.	Yes <input type="checkbox"/>	No <input type="checkbox"/>				68	<input type="checkbox"/>

*not applicable (because your parents don't run their own business)

Please answer the following questions about yourself.

	Question	Male	Female				v	
68.	My gender is:	<input type="checkbox"/>	<input type="checkbox"/>				69	<input type="checkbox"/>

	Question	Afri- kaans	English	African	Other		v	
69.	My home language is:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		70	<input type="checkbox"/>

APPENDIX A Questionnaire

	Question							v	
70.	My age is:	...						71	<input type="checkbox"/>
	Question	10	11	12				v	
71.	I am currently in grade:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				72	<input type="checkbox"/>
	Question	Yes	No					v	
72.	I take EMS (Economic and Management Sciences) as a subject.	<input type="checkbox"/>	<input type="checkbox"/>					73	<input type="checkbox"/>
	Question							v	
73.	If I take EMS as a subject, my average mark is:	...						74	<input type="checkbox"/>

74. Completing this questionnaire was: very easy / easy / difficult / very difficult for me.
 (Underline your choice)

APPENDIX B: South African secondary schools where the questionnaire was administered

Secondary school	South African province
Christian Brothers' College Mount Edmund	Gauteng
Esokwazi High School	Gauteng
Hoërskool Waterkloof	Gauteng
Jabulile Secondary School	Gauteng
Kgakoe Senior Secondary School	Limpopo
Kwa-Bhekilanga High School	Gauteng
Lehlabile Secondary School	Gauteng
Madiba High School	Gauteng
Makgetse High School	Gauteng
Meadowlands High School	Gauteng
Meyerton High School	Gauteng
Mountain View High School	Limpopo
Ponelopele Oracle Secondary School	Gauteng
Senaoane High School	Gauteng
St Alban's College	Gauteng
The Glen High School	Gauteng
Umqhele High School	Gauteng
Unity High School	Gauteng