Antecedents of social entrepreneurial intentions among Generation Y university students in South Africa

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DECLARATION

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DEDICATION

This thesis is dedicated to my father, Pastor Franklin M. Nkomba, and my mother, Jane Nkomba, for their prayers, encouragement and undying support throughout my studies.

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ABSTRACT

Antecedents of social entrepreneurial intentions among Generation Y university students in South Africa

KEY WORDS: Social entrepreneurship, Social entrepreneurial intentions, Antecedents to social entrepreneurship, Generation Y, University students, South Africa

World economies are currently faced with the challenge of finding effective and sustainable solutions to reduce social inequality and many other social problems. Social problems such as long-term poverty, unequal wealth distribution, poor medical care, crime and unemployment, hinder development of healthy economies, and South Africa is no exception. South Africa has been unable to address the triple challenges of poverty, unemployment and inequality. Considering unemployment alone, the figures are constantly on the rise, irrespective of the measures adopted. High unemployment figures, especially among the youth, place an unnecessary burden on limited government resources. Amid these social and environmental developments, social entrepreneurship (SE) has emerged as one measure that could help in overcoming this challenge.

SE is described as a business endeavour that combines a social purpose and entrepreneurial behaviour. The debate on SE has reached various institutions and research networks around the world. Although scientific research in the field is growing, as evident from the proliferation of publications on the topic, there has not been much scholarly output in the mainstream management and entrepreneurship journals. The main issue hindering the advancement of SE research is the lack of clarity on defining the phenomenon and the existing shortage of empirical studies. The existing literature has the tendency to employ more formal and hypothesis-testing research in the field, with some addressing recommendations made in previous studies, such as the application of established theories. However, more research is still needed to establish an appropriate methodology, especially for the measurement of social entrepreneurial intentions. In order to address these problems, this study first embarked on a comprehensive literature review to explore the meaning of the concepts involved. The existing SE definitions were critically analysed through a two-step procedure. The first step involved structuring complex and ambiguous information using qualitative content analysis procedure. In the second, the Sahlman People-context-Deal-Opportunity (PCDO) framework was followed to summarise content that was deduced from the previous step. The outcome revealed

seven central features of a social enterprise and seven central features of a social entrepreneur. Two new and concise definitions for the terms “social enterprise” and “social entrepreneur” were derived.

The study then continued to statistically analysing the resulting information from steps 1 and 2. A quantitative research approach was followed to collect data. A questionnaire was administered among 514 undergraduate and postgraduate university students from a selection of universities in South Africa. In an effort to improve on the credibility of the results, more data was collected from 190 university students from Dresden University, Germany. Exploratory, confirmatory factor analyses tests as well as structural equation modelling were employed to develop a scale to measure social entrepreneurial intentions among Generation Y University students in South Africa. The results revealed a distinct six item social entrepreneurial intention scale. Similar results were found when the German sample was used in the analysis. These results further confirmed the validity of the social entrepreneurial intentions. Furthermore, the validity of the scale was assessed against other factors acknowledged as social entrepreneurial intentions in the extant literature. Correlation analysis test was employed to determine convergent and divergent validity of the newly developed social entrepreneurial intentions scale against other existing scales. Positive correlations were found among all scales except for ethical risk-taking. The highest correlations were found for *Attitude towards* SE (r=.53, p< .01), *SE perceived behavioural control* (r=.46, p< .01), *Perceived social entrepreneurial feasibility* (r= .45, p< .01) and *Perceived social entrepreneurial desirability* (r = .52, p < .01). These results were in line with those of previous studies on social entrepreneurial intention and matched some of the theoretical considerations. Regression analysis was employed to investigate the strength of relationship among the SE antecedents. The results were significant indicating *Social entrepreneurial intention, Attitude towards entrepreneurship, Social norms, Perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality* and *Altruism* as antecedents to social entrepreneurial intentions among Generation Y university students in South Africa.

The results of this study showed that university students in South Africa perceive social entrepreneurial intention as an antecedent to SE. The developed scale can contribute to increasing the validity of social entrepreneurial intention assessment and can serve as encouragement to conduct quantitative research on SE. Practitioners are also served with an

empirically based measure of social entrepreneurial intentions that could be used to select for or monitor the success of social entrepreneurial education programmes.

OPSOMMING

Voorlopers van sosiale entrepreneuriële intensie onder Generasie Y universiteitstudente in Suid-Afrika

SLEUTELWOORDE: Sosiale entrepreneurskap, Sosiale entrepreneuriële intensie, Voorlopers van sosiale entrepreneurskap, Generasie Y, Universiteitstudente, Suid-Afrika

Wêreldekonomieë word tans uitgedaag om effektiewe en volhoubare maniere te vind om sosiale ongelykhede en ander sosiale probleme aan te spreek. Sosiale probleme soos langtermyn armoede, ongelyke verspreiding van rykdom, swak mediese sorg, misdaad en werkloosheid, verhinder die ontwikkeling van gesonde ekonomieë. Suid-Afrika is geen uitsondering nie. Tot dusver kon Suid-Afrika nog nie die drieledige las van armoede, werkloosheid en ongelykheid oorkom nie. Selfs as slegs armoede bekyk word, is dit duidelik dat die syfers voortdurend toeneem, ongeag die maatstawwe wat aangewend word. Hoë werkloosheid, veral onder die jeug, plaas onnodige druk op beperkte regeringshulpbronne wat reeds swik onder die gewig. Sosiale entrepreneurskap (SE) is een maatstaf wat kan help om hierdie probleme te bowe te kom.

SE kan beskryf word as ’n besigheidsinisiatief wat ’n sosiale doelwit en entrepreneursgedrag kombineer. Die debat rondom SE het al verskeie instellings en navorsingsnetwerke regoor die wêreld bereik. Alhoewel navorsing in die veld aan die groei is, soos duidelik blyk uit die uitsette, is daar nog weinig in die hoofstroom joernale in die velde van bestuur en entrepreneurskap. Navorsing oor SE word gemuilband deur gebrekkige duidelikheid met betrekking tot ’n definisie vir die fenomeen en ’n tekort aan empiriese studies. Die bestaande literatuur neig om meer formele en hipotese-toetsende navorsing in die veld te gebruik, en sommige uitsette spreek slegs die aanbevelings van vorige studies aan. Daar is meer navorsing nodig om ’n toepaslike metodologie daar te stel, veral vir die meting van sosiale entrepreneuriële intensie.

Ten einde die bogenoemde probleme aan te spreek het hierdie studie ten eerste komplekse en onduidelike inligting gestruktureer met behulp van kwalitatiewe inhoudsanalise. Tweedens is die Sahlman mense-konteks-ooreenkoms-geleentheid (MKOG) raamwerk gebruik om die inhoud wat gedurende die vorige stap gegenereer is saam te vat. Die uitkoms was sewe sentrale eienskappe van ’n sosiale onderneming en sewe sentrale eienskappe van ’n sosiale

entrepreneur. Twee nuwe en bondige definisies vir die terme “sosiale onderneming” en “sosiale entrepreneur” word uiteindelik aan die hand gedoen.

Die studie het vervolgens die resultate uit Stappe 1 en 2 statisties geanaliseer. ’n Kwalitatiewe navorsingsbenadering is gevolg om die data in te samel. ’n Vraelys is versprei onder voorgraadse en nagraadse universiteitstudente van geselekteerde universiteite in Suid-Afrika. Ten einde die geloofwaardigheid van die resultate te verbeter, is die vraelys ook onder 190 universiteitstudente van die Universiteit van Dresden in Duitsland versprei. Ondersoekende, bevestigende faktoranalise en strukturele vergelykingsmodellering is gebruik om ’n skaal te ontwikkel om sosiale entrepreneuriële intensie onder Generasie Y universiteitstudente in Suid-Afrika te meet. Die resultate het gelei tot die konstruksie van ’n nuwe, interkultureel robuuste ses-item skaal. Soortgelyke resultate is opgelewer toe die Duitse steekproef in die analise gebruik is. Hierdie resultate bevestig die geldigheid van die skaal vir sosiale entrepreneuriële intensies. Die geldigheid van die skaal is ook gemeet teen ander faktore wat in die bestaande literatuur gelys word as sosiale entrepreneuriële intensies. Korrelasie-analise is gebruik om die konvergerende en divergerende geldigheid van die nuwe skaal teen bestaande skale te toets. Daar was positiewe korrelasies tussen al die skale, behalwe die etiese neem van risikos. Die hoogste korrelasies was tussen *Houding teenoor SE* (r=.53, p< .01), *SE ervaring van gedragsbeheer* (r=.46, p< .01), *Ervaring van sosiale entrepreneuriële haalbaarheid* (r= .45, p< .01) en *Ervaring van sosiale entrepreneuriële wenslikheid* (r = .52, p < .01). Die resultate kom ooreen met vorige studies oor entrepreneuriële intensie en sommige van die teoretiese oorwegings. Regressie-analise is gebruik om die verhouding tussen die voorlopers van SE te toets. Die resultate dui op *Sosiale entrepreneuriële intensie*, *Houding teenoor entrepreneurskap, Sosiale norme, Ervaring van gedragsbeheer, Ervaring van sosiale entrepreneuriële wenslikheid, Etiese neem van risikos, Neem van beleggingsrisikos, Proaktiewe persoonlikheid* en *Altruïsme* as voorlopers van sosiale intrepreneuriële intensie onder Generasie Y unversiteitstudente in Suid-Afrika.

Die resultate van die studie toon dat universiteitstudente in Suid-Afrika SE-intensie sien as ’n voorloper van SE. Die ontwikkelingskaal kan bydra tot die validering van SE-intensie assessering en kan dien as aanmoediging om kwantitatiewe navorsing oor SE te doen. Dit bied ook aan praktisyns ’n empiries-gebaseerde maatstaf van SE-intensie wat gebruik kan word om die sukses van SE onderrigprogramme te bepaal.

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LIST OF ABBREVIATIONS

AGFI	Adjusted goodness-of-fit index
CFA	Confirmatory factor analysis
CFI	Comparative fit index
EEM	Entrepreneurial event model
EFA	Exploratory factor analysis
EIQ	Entrepreneurial Intentions Questionnaire
EIS	Entrepreneurial Intention Scale
EPM	Entrepreneurial potential model
GEM	Global Entrepreneurship Monitor
GFI	Goodness-of-fit index
MFI	McDonald's fit index
PCA	Principal component analysis
PCDO	People-context-deal-opportunity
RMSEA	Root means-square error of approximation
SE	Social entrepreneurship
SEA	Social entrepreneurial activity
SEAS	Social Entrepreneurial Antecedents Scale
SEE	Shapero's entrepreneurial event
SEI	Social entrepreneurial intentions
SEM	Structural equation modelling
SRMSR	Standardised root mean-square residual
TLI	Tucker-Lewis index
TPB	Theory of planned behaviour
TRA	Theory of reasoned action

CHAPTER 1: INTRODUCTION, PROBLEM STATEMENT AND OBJECTIVES

"Many young people today feel frustrated because they cannot recognize any worthy challenge that excites them within the present capitalist system. When you have grown up with ready access to the consumer goods of the world, earning a lot of money isn't a particularly inspiring goal. Social business can fill this void."

– (Muhammad Yunus, 2007:40 – Nobel Peace Prize Winner 2006)

1.1 INTRODUCTION

World economies are currently faced with the challenge of finding effective and sustainable solutions for many social problems (Alvord, Brown & Letts, 2004:260). Social problems such as long-term poverty, unequal wealth distribution, poor medical care, crime and unemployment hinder the development of healthy economies. Although it does appear that global wealth improved between the years 2000 and 2014, with an average adult wealth of $53 000 by the year 2014 (Davies, Lluberas & Shorrocks, 2017:741), such wealth surveys "are very likely to underestimate wealth at the top" (Vermeulen, 2018:361). In other words, wealth surveys tend to reveal significant positive skew of wealth distribution where only a small percentage of people or households hold a considerable fraction of total wealth. Besides, Davies *et al.* (2017:756) observe a global rise in levels of social inequality. This problem manifests in different ways, for example as an increase in unmet human needs and wants. Traditionally, human needs and wants have driven companies to produce goods and services. Leadbeater (1997:7) contends that governments and businesses have the ability to address pressing social problems such as poverty, health, education and social exclusion in a meaningful manner. On the contrary, (Seelos & Mair, 2005:241) opine that for many years now companies have been failing to satisfy the unmet needs of millions of people from non-industrialised countries since the products and services offered on the market carry significant cost. Furthermore, Mackenbach (2017:113) is of the view that social problems will persist or even increase in the coming years if the status quo is maintained. It is therefore crucial to address unequal distribution of wealth in order to prevent severe economic and social problems (Lynch, Smith, Kaplan & House, 2000).

In the midst of these social and environmental developments, social entrepreneurship (SE) has emerged as a global phenomenon that may help reduce such social ills (Nicholls, 2008:1). For example a foundation for SE established in Colombia as early as 1911, with the specific aim of generating income that could be harnessed to achieve positive social outcomes to benefit the low- and middle-income sectors of society (Fowler, 2000:645). Later establishments, such as Ashoka, the Skoll Foundation and the Swab Foundation, also informed the practice of SE (Martin & Osberg, 2007:32). The uniqueness of these foundations lies in their vision of driving transformative change by supporting individuals who recognise systems that are in need of change; also known as social entrepreneurs. The combined efforts of social entrepreneurs and foundations advance social progress by developing powerful models of change that disrupt a suboptimal status quo and transforms the world for the better. One good example of this is the founding of Grameen Bank in Bangladesh (Bornstein, 1996:370). The bank was founded on the premise that it grants loans to poor people who have no collateral. Most loans were granted to women as start-up funds for self-employment schemes. Jain (1996:79) acknowledged that the Grameen Bank of Bangladesh is an exceptionally successful project. While helping over two million women in the country, the bank achieved a debt recovery rate of 98 percent and its impact spread to over 35 thousand villages in Bangladesh.

Social entrepreneurs such as Muhammed Yunus of Grameen Bank in Bangladesh owe much of their success to potential social entrepreneurs. Having many such social entrepreneurs who launch social enterprises in areas where the market, the state and not-for-profit enterprises have failed, would bring about equitable sustainable development in marginalised areas (Urban, 2008:348). Collectively, these foundations have contributed towards creating global public awareness about social entrepreneurs who are searching for solutions to social problems (Visser, 2011:234), and South Africa can learn from these initiatives.

1.2 SOCIAL ENTREPRENEURSHIP

SE is an emerging field within entrepreneurship research that is currently attracting the attention of both scholars and policy makers worldwide. Broadly speaking, SE is an entrepreneurial business model founded on a desire to create social value by establishing social purpose organisations (Hockerts, 2015:261; Peredo & McLean, 2006:60). Social value creation entails creating wealth that could contribute to the well-being of people in society. Social entrepreneurs create social wealth without regard for the maximisation of their own economic

benefit (Dees, 1998:3). In SE, social wealth is measured by looking at the extent to which the efforts of the social entrepreneurs contribute positively to the social fabric.

However, competing definitions and conceptual frameworks (Cukier, Trenholm, Carl & Gekas, 2011:99; Mair & Marti, 2006:36) challenge advanced research on SE. Different authors have proposed different definitions in an attempt to describe the phenomenon (Dees, 1998:1). While some researchers understand it as a new business model that adopts commercial business practices and applies them to address the needs of society (Hervieux, Gedajlovic & Turcotte, 2010:38), others view it as a move on the side of social purpose organisations towards a more business-like model in an attempt to bring new important changes to society (Mair & Naboa, 2006:121). Some researchers ask the question of whether SE is applicable only to non-profit organisations or to all types of organisations, regardless of their reason for formation (Hervieux *et al.*, 2010:38). The need to understand what constitutes SE is pressing (Rivera-Santos *et al*., 2015:72; Bacq & Janssen, 2011:374). The challenge of finding a shared understanding of the concept is impeding the development of SE as a legitimate field of study (Nicholls, 2010:611). These shortcomings in SE research leave a research gap that has to be addressed, which is what this study is setting out to do. The section below provides further clarification of the problem statement.

1.3 PROBLEM STATEMENT

The debate on SE has reached various institutions and research networks around the world (Defourny & Nyssens, 2010:32). Scientific research in the field is growing, as is evident from the proliferation of publications on the topic (Kraus, Filser, O'Dwyer & Shaw, 2014:276). However, there has not been much scholarly output in the mainstream management and entrepreneurship journals (Lee, Battilana & Wang, 2014:241; Short, Moss & Lumpkin, 2009:161). To date, researchers have argued that SE is still an underexplored area of research. It is at an early stage of development (Pierre, von Friedrichs & Wincent, 2014:43). The main issue hindering the advancement of SE research is the lack of a comprehensive and mutually agreed upon definition (Wry & York, 2017:437). Cho (2006:36) for instance outlines how SE definitions usually fail to cover the "central theoretical and normative issues that arise from the concept´s juxtaposition of "social" objectives and the instruments of private enterprise". Despite previous work summarising different schools of thoughts (Bacq & Janssen, 2011:373) and approaches to SE (Wry & York, 2017:437), hardly any progress has been made on a

mutually agreed upon definition of the concept. There is subsequently little empirical evidence to prove that social entrepreneurial intentions serve as an antecedent of social entrepreneurial intentions among Generation Y university students in South Africa. It remains important to identify what determines social entrepreneurial intentions in the South African context.

The existing literature bares evidence of a tendency to employ more formal and hypothesis-testing research in the field, especially when investigating antecedents to social entrepreneurial intention, for example the intention to found a social enterprise (Hockerts, 2017:105; Tiwari, Bhat & Tikoria, 2017:37). While some have addressed the recommendations made by Short *et al.* (2009:161), for example the application of established theories (Dacin, Dacin & Matear, 2010:37), more research is still needed to establish an appropriate methodology, especially for the measurement of social entrepreneurial intentions. Several different methods could be applied to assess social entrepreneurial intentions, and as a recent meta-analysis suggests, different results emerge from different kinds of assessment (Kruse, Wach & Wegge, 2018:10). Therefore, more research is needed to develop and validate a scale for measuring social entrepreneurial intentions and identifying antecedents to SE intentions among Generation Y university students in South Africa.

1.4 RESEARCH OBJECTIVES

This study aims to address the research gap described above by pursuing the following objectives:

1.4.1 Primary objective

The primary objective of this study is to investigate antecedents to social entrepreneurial intentions among Generation Y university students in South Africa.

1.4.2 Theoretical objectives

The primary objective of this study gives rise to the following theoretical objectives:

- To conduct a literature study on entrepreneurship and entrepreneurial intentions;
- To conduct a literature study on SE and social entrepreneurial intentions; and
- To conduct a literature study on antecedents to social entrepreneurial intentions.

1.4.3 Empirical objectives

The empirical objectives of the study are outlined as follows:

- To develop and validate a scale to measure social entrepreneurial intention among university students in South Africa;
- To test the validity of the scale among university students in Germany
- To determine the relationship between social entrepreneurial intention scale and antecedents to social entrepreneurial intentions; and
- To identify the strength of the relationship among antecedents to social entrepreneurial intentions.

1.4.4 Hypotheses

The following five hypothesis were formulated based on the third and fourth empirical objectives of this study:

H_{1a}: Attitudes towards SE is positively related to social entrepreneurial intentions

H_{1b}: Subjective norms are positively related social entrepreneurial intentions.

H_{1c}: Perceived behavioural control is positively related to social entrepreneurial intentions

H_{2a}: Perceived social entrepreneurial desirability is positively related to social entrepreneurial intentions.

H_{2b}: Perceived social entrepreneurial feasibility is positively related to social entrepreneurial intentions

H_3: Proactive personality is positively related to social entrepreneurial intentions

H_{4a}: Financial risk is positively related to social entrepreneurial intentions.

H_{4b}: Ethical risk is positively related to social entrepreneurial intentions.

H_5: Altruism is positively related to social entrepreneurial intentions.

The following sections discuss the research design and methodology followed in the study

1.5 RESEARCH DESIGN AND METHODOLOGY

This study comprises a literature review and an empirical study on antecedents to social entrepreneurial intentions. The empirical part of the study involved quantitative research by means of a survey. The researcher used a questionnaire to collect data based on the empirical objectives. The data were collected, coded and captured on an Excel spreadsheet and later imported into SPSS (Version 25) for further analysis. The sections that follow provide a brief discussion of the research design and methodology used in the study. Chapter 4 of this report provides an in-depth exploration of the chosen methodology.

1.5.1 Literature study

A literature study reports on the process of reviewing the available body of literature on a particular topic (Creswell, 2013:27). A review of extant literature helps to delimit the study and serves as a benchmark test for the study results (Creswell, 2013:28). Additionally, a literature review creates a firm foundation for advancing knowledge through theory development, closing research gaps, and/or uncovering new areas of research (Webster & Watson, 2002:xiii).

An extensive literature review on the concepts of entrepreneurship and SE using both the local and international literature was conducted. The sources that were consulted included journal articles, research papers, conference papers, government reports and documents, relevant textbooks and newspaper articles. The texts were sourced from online platforms such as Science Direct, Emerald and Google Scholar.

1.5.2 Empirical study

An empirical study entails a process of gaining knowledge by means of direct and indirect observation or experience. This evidence can be analysed quantitatively or qualitatively. The research design would depend on the research question. As stated earlier, this study adopted a quantitative research method. The quantitative approach is used to test objective theories by examining the relationship among variables (Creswell, 2013:4). The variables in question are measured using an instrument so that numbered data are analysed using statistical procedures. Essentially, quantitative research requires large samples because the ultimate goal is to represent the whole population. Therefore, data collection is necessary when conducting a

quantitative study. The process entails several steps that the researcher must follow, starting with defining the target population; explaining the sample frame, sampling method and sample size; and describing the procedure for designing the measuring instrument and data analysis techniques that were used. The sections that follow provide a brief discussion on the methodology used for the empirical portion of the study.

1.5.3 Target population

A target population represents the entire group of individuals or objects upon which the researcher intends to generalise research conclusions (Burns & Grove, 2005:345). According to Zikmund (2003:293), proper definition of the target population enables the researcher to determine what sources would yield the correct data. Therefore, it is important to define the target population as precisely as possible (Malhotra & Birks, 2007:406). The target population for this study included all university students that were registered for the 2018 academic year in South Africa. University students were chosen as the target population due to the likelihood that they would engage in entrepreneurial activity as a career choice upon completing their studies (Bosma & Levie, 2010:7).

1.5.4 Sample frame

A sampling frame is a list of criteria used to draw a sample (Zikmund, Babin, Carr & Griffin, 2012:317). If it is not possible to formulate a list of criteria, the researcher must find another way to select a sample from the target population (Malhotra, 2010:372). The criterion for this study was that participants had to be students registered for the 2018 academic year from a selection of six public universities public universities in South Africa. However, this study also included a selection of students from one university in Germany. This sample was included in order to improve the robustness of the study findings by using data of participants from a different economic and cultural background.

1.5.5 Sampling method

Sampling methods can be divided into the category of probability sampling and the category of non-probability sampling (Ghauri & Gronhaug, 2010:139). When using probability

sampling, the researcher gives each unit an equal and known opportunity to be selected to be part of the sample, which means that the subsequent results of the study would be generalisable to the population at large. Non-probability sampling conversely means that it is not known what the chance is that a given unit in the population would be included in the sample. With non-probability sampling, the researcher's uses his or her personal judgement or bases the selection on convenience (Malhotra, 2010:376). The advantage of using a non-probability sampling technique such as convenience sampling is that it is more cost-effective and convenient compared to probability sampling techniques (Wagner, Kawulich & Garner, 2012:92). That being the case, this study employed convenience sampling when collecting data from students from the selected universities.

1.5.6 Sample size

Sample size refers to the number of elements included in the research study (Malhotra, 2010:374). Determining sample size has important economic reasons (Lenth, 2001:187). An undersized sample could amount to a waste of resources for something that could otherwise have produced a valid research result. On the contrary, an oversized sample size may use resources unnecessarily. Therefore, Yang (2010:44) advises that research sample size should be large enough to represent the population variations, but small enough to be cost effective. A researcher must consider the nature and analysis of the data and the sample sizes that other researcher used in previous studies when determining sample size (Malhotra & Peterson, 2006:358). This study applied a historical method to determine sample size by using a sample size similar to those employed in previous studies on SE (Hockerts, 2015:267; Nga & Shamuganathan, 2010:269). For example, Raposo, Do Paco and Farreira (2008:411) used a sample size of 316 students at the University of Beira in Portugal. Similarly, Urban (2008:246) used a sample size of 287 students in South Africa. Therefore a total sample size of 704 students (N_{ZA}= 514; N_{GER} =190) was used for this study.

1.5.7 Questionnaire design

This study involved the use of a self-administered questionnaire to address the stated research objectives. The questionnaire was designed to accurately measure the antecedents to social entrepreneurial intentions among the survey participants. The questionnaire included nine sections. Section 1 requested the participants' demographic information. Section 2 to Section

8 included statements regarding antecedents to social entrepreneurial intentions. Section 9 consisted of statements aimed at analysing the participants' level of knowledge about SE and/or social entrepreneurial activity. The items on the scale were ranked according to a Likert scale. Further details on the specific Likert scale used to measure each construct in the questionnaire are discussed in Chapter 4 (Section 4.6.3) of this report. A pilot study was conducted to determine the reliability of the questionnaire and Cronbach's alpha was used to examine the internal consistency.

1.5.8 Data analysis

The Statistical Package for Social Sciences (IBM SPSS version 25) was used for data processing and analysis. Descriptive statistics was used to report on the frequency distribution, percentages and means of the demographics of the sample. Factor analyses and structural equation modelling were used to validate Section 2 of the questionnaire. A correlation analysis was conducted to examine the relationship between social entrepreneurial intention scale and antecedents to social entrepreneurial intentions. A regression analysis was also conducted to examine the strength of relationship among the antecedents to social entrepreneurial intentions.

1.6 CONTRIBUTIONS AND SIGNIFICANCE OF THE STUDY

The need for SE research in South Africa cannot be overemphasised. South Africa has been unable to address the triple challenges of poverty, unemployment and inequality (Karanda & Toledano, 2012:203). Considering unemployment alone, the figures are constantly on the rise, irrespective of the measures adopted. For example, the 2017 Quarterly Labour Force Survey by the National Treasury reported a national unemployment level that stagnated at 27.7 percent. Unemployment levels have remained high for some time. According to Fatoki and Chindoga (2011:162), similar reports show unemployment levels of thirty percent (30%) among youths between 15 and 24 years and forty percent (40%) among youths between 25 and 34 years. Whichever way one looks at these figures, unemployment is problematic and has to be resolved. The unemployment figures in South Africa, especially among the youth, places an unnecessary burden on limited government resources that are already struggling with unending demands (Herrington, Kew & Kew, 2010:12). In order to avoid the branding of the South African youth as a "lost generation" (Oluwajodu, Greyling, Blaauw & Kleynhans, 2015:1), there is need for swift action to address the unemployment gap. Many of these unemployed

youths express their anger and frustrations by either committing crime or indulging in substance abuse, which further exacerbates the many social ills plaguing the country (Viviers, Venter & Solomon, 2012:70).

Consequently, this study aims to highlight the potential of SE as a practice that could help mitigate the many social ills plaguing South Africa. Although much of the work acknowledged as SE in South Africa is currently being done by NGOs established over the last 15 years (Visser, 2011:234), many NGOs are failing to meet the social needs of people in society due to the immense financial pressure associated with supplying basic resources (Urban, 2008:348). Over the years, their efforts have proven inefficient, ineffective, and unresponsive. SE in turn is widely perceived as a measure for addressing social inequality (Nicholls, 2008:1).

The central drivers for SE are social problems. In South Africa, social entrepreneurs are driven by political, environmental and social problems that are becoming increasingly complex (Littlewood & Holt, 2018:525; Urban, 2008:347). In line with the research problem that has been identified, this study added to the existing theory and argued for the importance of understanding antecedents to social entrepreneurial intentions in South Africa. More specifically, the study developed a scale to measure social entrepreneurial intention. Furthermore, the study identified antecedents to social entrepreneurial intentions among Generation Y university students in South Africa and tested hypotheses to eliminate speculation on these matters. The study also highlighted necessary areas for future research. The in-depth analysis of the antecedents to social entrepreneurial intentions and their influence on SE within the South African context will help policy makers when they review the support programmes available to assist social entrepreneurs. Additionally, this part of research will help raise awareness of SE among Generation Y university students in South Africa.

1.7 ETHICAL CONSIDERATIONS

The research study complied with ethics standards commonly associated with academic research, including the following:

- Properly disclosing intent by not giving respondents a false impression of the research;
- Providing respondents with clear information regarding the type of questions they would be asked;

- Taking the welfare of respondents into consideration should the respondents be adversely affected in any way;
- Gaining free and informed consent and not putting pressure on the respondents; and
- Giving the respondents the right to privacy, anonymity and confidentiality.

The researcher applied for ethical clearance from the North-West University before embarking on the study. Furthermore, the selected institutions were approached for approval before the research was conducted. Participation in the survey was voluntary. The confidentiality and anonymity of the information provided by the respondents was safeguarded.

1.8 DEFINITION OF TERMS

The definitions and descriptions applicable to the research are discussed below.

Entrepreneurship involves all activities that individuals undertake where they assume a risk by identifying opportunities and applying innovative ideas to scarce resources to make profits in excess of the rate of return for land, labour and capital (Gedeon, 2010:18).

SE is the process that involves the innovative use and combination of scarce resources to pursue opportunities to catalyse social change in society (Mair & Marti, 2006:40).

Antecedents to SE include the factors that would influence an individual's intentions to engage in SE.

Social entrepreneurial intentions are described as the direction of an individual's behaviour that is triggered by his/her internal and external social entrepreneurial factors (antecedents).

Generation Y (also known as Millennials) is the group of individuals born somewhere between 1982 and 1999. This group of individuals tend to express a weaker work ethic, tend to seek pleasure and want more freedom as part of a work–life balance than their predecessors (Generation X) (Twenge, 2010:205).

1.9 CHAPTER OUTLINE

Chapter 1: Introduction, problem statement and objectives.

This chapter provides the introduction and background to the study. This is followed by a discussion of the research problem, the objectives of the study and the importance of the research study. The key concepts involved in the study are clarified, after which the chapter ends with an outline of the rest of the study.

Chapter 2: Literature review: Entrepreneurship

This chapter focuses on reviewing the literature on entrepreneurship. It also provides a detailed overview of the evolution entrepreneurship and gives an outline on its definition. The chapter furthermore discusses the theories pertaining to entrepreneurship and entrepreneurial intentions relevant to the study.

Chapter 3: Theoretical framework for social entrepreneurship research

This chapter discusses the literature on SE. It first analyses the definitions of SE. This is followed by a discussion on the theories pertaining to social entrepreneurial intentions and analyses previous studies on social entrepreneurial intentions. It concludes with a discussion on some variables identified as antecedents to social entrepreneurial intentions.

Chapter 4: Research methodology

This chapter outlines research methodology followed in the study. The chapter defines the population and sample frame and discusses the sampling procedure and problems experienced. This is followed by a discussion on data analysis and the statistical procedures used in the study.

Chapter 5: Data analysis and interpretation of results

This chapter interprets and reports the results of data analysis. It starts with the demographic profile of the sample, after which it presents pilot results followed by a report on the study's main findings.

Chapter 6: Conclusions and recommendations

The concluding chapter of the thesis revisits the objectives of the study and summarises the research process and findings. The chapter then continues with recommendations based on the findings and discusses the limitations of the study, followed by a cursory look at the contribution the study makes. As a final contribution, the chapter makes suggestions for future research.

1.10 CONCLUSION

This chapter introduced the study and provided a background on SE. This was followed by a discussion of the problem statement, research objectives and rationale of the study. It also outlined the research design for the study, with cursory attention to the literature study, the definition of the target population and a description of the sampling methods. The data collection strategies and data analysis were also briefly discussed. The chapter furthermore examined the significance, contributions and ethical considerations of the study, and concluded with an outline of the rest of the study.

The next chapter offers a literature study on entrepreneurship. It starts by highlighting the importance and characteristics of entrepreneurship research. This is followed by a literature review on the definitions of the entrepreneur and entrepreneurship and a discussion of the motives for entrepreneurship and the theories on entrepreneurial intentions.

CHAPTER 2: LITERATURE REVIEW: ENTREPRENEURSHIP

2.1 INTRODUCTION

In an effort to ensure a thorough scientific approach, this study starts the inquiry into the antecedents to social entrepreneurial intentions among university students by considering the existing theories. SE is framed by different theories on entrepreneurship. Martin and Osberg (2007:30) observe that SE developed from the term entrepreneurship. This is a business undertaking that Wry and York (2017:437) describe as an integration of social welfare and commercial logics. Deciphering what SE entails therefore requires an in-depth understanding of the concept of entrepreneurship. Similarly, Durieux and Stebbins (2010:10) contend that social entrepreneurs use business principles to bring social change by establishing and managing a business venture. Therefore, based on the understanding that SE is entrepreneurship aimed at creating social value, this chapter reviews the relevant literature on entrepreneurship and presents a theoretical framework to guide the research on SE. The chapter begins by illuminating the meaning of entrepreneurship and the entrepreneur. It continues to highlight the importance of entrepreneurship in the economy and, more specifically, understanding its role in economic theory. Thereafter, the chapter offers a brief discussion on the theories of economic development. Furthermore, the chapter examines the available theories of entrepreneurship and their historical background, and then visits research on intentions that would influence a person's decision to engage in entrepreneurship. The chapter concludes with a discussion on the various types of entrepreneurship.

2.2 ENTREPRENEURSHIP RESEARCH DOMAIN

As a principle objective, conducting research requires a thorough review of the scientific literature in the field (Fayolle, 2002:258). An in-depth knowledge of how entrepreneurship research has evolved over time is reliant upon a good comprehension of what characterises entrepreneurship research.

2.2.1 Characteristics of entrepreneurship research

Research on entrepreneurship has a long history that dates back to the 19th century (Busenitz, Plummer, Klotz *et al.,* 2014:981; Hébert & Link, 2009:241; Low & MacMillan, 1988:139).

Significant literature reviews that trace the evolution of entrepreneurship as a discipline have emerged in various entrepreneurship journals, in the publications of professional associations, conference proceedings, the records of meetings and academic appointments (Low, 2001:17; Davidsson, Low & Wright, 2001:5; Low & MacMillan, 1988:139). Studies that analyse past contributions and the future direction of entrepreneurship research reveal a number of factors that characterise entrepreneurship research (Busenitz *et al.*, 2014:981; Landström, Harirchi & Åström, 2012:1181; Schildt, Zahra & Sillanpää, 2006:399). As stated by Low and MacMillan (1988:141), the existing literature on entrepreneurship lacks clarity of purpose, with most research focusing on the occurrence of entrepreneurship or the personality characteristics of entrepreneurs. This leaves readers wondering what the research output intended to achieve. More research aimed at synthesising research findings to uncover causal relationships and/or explore implications for practice and advancement is necessary for the furtherance of the research field.

Schildt *et al*. (2006:399) characterise entrepreneurship research as fragmented and diverse with non-cumulative results that hinder the evolution of the field as a respected scholarly discipline. Entrepreneurship cuts across many disciplinary boundaries. Studies that fall within the ambit of entrepreneurship have pursued a wide range of aims and objectives (Low & MacMillan, 1988:139). Generally, the multifaceted nature of entrepreneurship creates such a diversity of views in entrepreneurship studies that there is a lack of consensus when it comes to defining entrepreneurship (Mack & Pützschel, 2014:14). The meaning of entrepreneurship is constantly evolving, despite the numerous attempts scholars have made to clarify the research boundaries of entrepreneurship (Burg & Romme, 2014:370; Carlsson, Braunerhjelm, McKelvey *et al.*, 2013:913; Murphy, Liao & Welsch, 2006:12; Kao, 1993:69). The term means different things to different people, even among scholars and thought leaders (Audretsch Kuratko & Link, 2015:705). To date, entrepreneurship has been an emerging field of study that is constantly evaluating and re-evaluating its position among related fields of study in an attempt to establish its legitimacy (Busenitz *et al.*, 2014:981; Busenitz *et al.*, 2003:286; Low, 2001:17; Bruyat & Julien, 2001:165). A brief analysis of what shaped the domain of entrepreneurship could therefore be helpful to highlight the main debates and contributions (Carlsson *et al.*, 2013:914).

2.2.2 Boundaries of entrepreneurship

The boundaries of entrepreneurship research are quite complex to define. Carlsson *et al*. (2013:913) see entrepreneurship research as chiefly referring to an "economic function that is carried out by individuals (entrepreneurs) acting independently or within organisations, to perceive and create new opportunities and to introduce their ideas into the market, under uncertainty, by making decisions about location, product design, resource use, institutions, and reward systems." However, the domain of entrepreneurship embraces numerous disciplinary perspectives at various levels of analysis and researchers use a variety of approaches. These are discussed below.

Entrepreneurship research rely on contributions from various disciplines, among others economics, management or business administration, sociology, psychology, marketing and finance (Carlsson *et al.*, 2013:914). While many of these disciplines have taken an interest in entrepreneurship, each discipline brings with it a particular view of this new field. A thorough discussion of these relationships is beyond the scope of this study, but Table 2.1 below offers a cursory summary of the different disciplines associated with entrepreneurship.

Table 2.1: Different disciplines that interlink with entrepreneurship

Discipline	Level of analysis	Focus	Example of question
Psychology	Individual	Entrepreneur	What are the characteristics of an entrepreneur? Who becomes an entrepreneur? What factors determine entrepreneurship?
Organisational behaviour	Individual/firm	Entrepreneurship	How are new businesses established? What factors influence new business development? How does the entrepreneur influence others?
Business administration	Firm	Entrepreneurial ventures	How are limited resources managed with a view to creating and running a new business? How are the new businesses managed and controlled?
Interorganisation theory	Relationship between firm and environment	Network	"How does the entrepreneur use his personal network in order to organise resources?"
Population ecology theory	Industry	Evolutionary processes of populations of firms	What characterises the survival, development and mortality of a population of new firms? What strategies may be used to survive? What environmental factors determine the survival changes of new firms?
Sociology	Society	The social system	How is value growth created in society? What role does the entrepreneur play? What role does the social context play in the individual entrepreneurial decision?
Social anthropology	Society	The cultural system	What role does the entrepreneur have in a society? How is knowledge/information of entrepreneurship transferred in society?
Economics	Society	The economy	What happens on the market when the entrepreneur acts?

Source: Landström (1999:16)

Besides the many disciplines that enrich entrepreneurship research, entrepreneurial activities operate at various levels of analysis, including the individual level, firm/business level and macro/national level (Carlsson *et al*., 2013:913). These levels of analysis show how entrepreneurial endeavours simultaneously affect the different levels of society (Davidsson & Wiklund, 2001:81). For example, entrepreneurial activity begins with an entrepreneur creating a new enterprise, and this eventually brings about economic development at the national level. Altogether, entrepreneurial activity is one of the primary drivers of industrial dynamism, economic development and growth (Carlsson *et al*., 2013:913). The entrepreneur sits at the apex of a hierarchy that determines the behaviour of the firm and bears a heavy responsibility for the vitality of a free enterprise society (Baumol, 1968:64).

Aside from the intersection with other disciplines, there are three views of entrepreneurship that shape entrepreneurship research. Table 2.2 summarises these views.

Table 2.2: Synthetic view of entrepreneurship research

Key question	What? (Functional approach)	Who/why? (Individual approach)	How? (Process approach)
Period	Lasted 200 years	Early 1950s	Early 1990s
Principal scientific domain	Economics	Psychology, sociology, cognitive psychology, social anthropology	Management, sciences, entrepreneurship, organisational theory
Object of study	Functions	Personal characteristics, individual traits, entrepreneurs and potential entrepreneurs	Process of creating new business
Dominant paradigm	Positivism	Positivism, comprehensive sociology	Constructivism
Researchers/ main authors	Cantillon, Say, Schumpeter, Knight, Kirzner, Leibnstein, Casson, etc.	Weber, McClelland, Brockhause, Hornnadsy, Kes de Vries, Smith, Karland, Aldrich, etc.	Gartner, Bouchiki, Bruyat, Van de Van, Bygrave, Hofer.
Methodology	Quantitative	Quantitative (mainly), qualitative	Quantitative (mainly), qualitative
Fundamental hypothesis	Entrepreneur plays/does not play an important role in the economic growth	Entrepreneurs are different from non-entrepreneurs	Entrepreneurial processes are different from each other
Social demand (who is interested?)	State and local economic organisations and institutions	Entrepreneurs, potential entrepreneurs, education systems, instructors	Enterprises, entrepreneurs, potential entrepreneurs, instructors, supporting structures for entrepreneurs

Source: Fayolle (2003:259)

As summarised in Table 2.2, the first stream of research addresses the result of an entrepreneur's actions. This is a point of view taken by economists such as Schumpeter and Kirzner (Stevenson & Jarillo, 1990:18) and it provides answers to the question of who would be an entrepreneur or what a person does who is known as an entrepreneur. The second stream of research, led by McClelland, Collins and Moore in the early 1960s, is termed the psychological/sociological research stream. Their work provides useful insight into why entrepreneurs act (Stevenson & Jarillo, 1990:18), or what differentiates an entrepreneur from

a manager. The last stream of research analyses the characteristics of entrepreneurial management, besides any personal reasons and/or environmental inducements. In short, these streams of research reveal trends in entrepreneurship research that move from dealing with the individual entrepreneur's actions in the direction of focusing on the entrepreneurship as a process (Bygrave & Hofer, 1991:14).

2.2.3 Entrepreneurship defined

Bearing in mind the different perspectives that have shaped entrepreneurship research, defining the entrepreneur and entrepreneurship is a tedious task. Nevertheless, researchers still want to know what it takes to become an entrepreneur, or why some individuals tend to start their own businesses and others do not. The answers to these questions lie in the analysis of the entrepreneur and understanding the who, why and when of how entrepreneurs act (Landström, 1999:14). In other words, what characteristics define the entrepreneur? Although Drucker (1985:19) generally defines entrepreneurs as individuals who start their own businesses, Carland, Hoy, Boulton and Carland (1984:357) argue that such a definition is too broad. Instead, they feel that clear distinctions are necessary to distinguish entrepreneurs from mere business owners. Their distinctions between entrepreneurs and business owners are summarised in Table 2.3.

Table 2.3: A comparison of small businesses and entrepreneurship

	SMALL BUSINESS	ENTREPRENEURSHIP
VENTURE	"A small business venture is any business that is independently owned and operated, not dominant in its field, and does not engage in any new marketing or innovative practices."	"An entrepreneurial venture is one that engages in at least one of Schumpeter's four categories of behaviour [introduction of new goods, introduction of new methods of production, opening of new markets, industrial reorganisation]: that is, the principal goals of an entrepreneurial venture are profitability and growth and the business is characterized by innovative strategic practices."
INDIVIDUAL	"A small business owner is an individual who establishes and manages a business for the principal purpose of furthering personal goals. The business must be the primary source of income and will consume the majority of one's time and resources. The owner perceives the business as an extension of his or her personality, intricately bound with family needs and desires."	"An entrepreneur is an individual who establishes and manages a business for the principal purpose of profit and growth. The entrepreneur is characterized principally by innovative behaviour and will employ strategic management practices in the business."

Source: Carland *et al.* (1984:357)

Understanding entrepreneurs seems straightforward when looking at Table 2.3. However, besides Carland's descriptions, researchers have discussed the functional roles of entrepreneurs (Naudé, 2013:2; Runyan, Droge & Swinney, 2008:568). This view highlights the economic value that entrepreneurs have for stimulatieng economic progress (Martin & Osberg, 2007:30). The entrepreneur can function independently or within the organisation to identify or create new opportunities and to introduce new ideas to the market. For example, Hébert and Link (1989:40) highlight the following 12 crucial roles that entrepreneurs play in economic theory:

- The entrepreneur is the person who assumes the risk associated with uncertainty.
- The entrepreneur is the person who supplies financial capital.
- The entrepreneur is an innovator.
- The entrepreneur is a decision maker.
- The entrepreneur is an industrial leader.
- The entrepreneur is a manager or superintendent.
- The entrepreneur is an organiser and coordinator of economic resources.

- The entrepreneur is the owner of an enterprise.
- The entrepreneur is an employer of factors of production.
- The entrepreneur is a contractor.
- The entrepreneur is an arbitrageur.
- The entrepreneur is an allocator of resources for alternative uses.

Consequently, the entrepreneur is just about the most elusive and intriguing character of economic analysis due to the sheer weight of the fundamental functions he/she is held responsible for (Baumol, 1968:64). What is more, an understanding entrepreneurship based on the entrepreneur's various functional roles has been criticised for being too fragmented. None of the descriptions seems to capture the whole picture of what consistently describes the phenomenon (Low & MacMillan, 1988:141). This being the case, more descriptive efforts to delineate the central themes of entrepreneurship have emerged (Connelly, Ireland, Reutzel & Coombs, 2010:132; Sarasvathy, 2004:707; Bruyat & Julien, 2001:166; Gartner, 1990:16).

A more inclusive approach to understanding the entrepreneur or entrepreneurship should describe the phenomenon as a process that involves the creation of new businesses, new jobs, that intensifies competition and increases productivity through technological change (Acs, 2006:97). Professor Howard Stevenson, also known as the godfather of entrepreneurship at the Harvard Business School, describes entrepreneurship as the pursuit of opportunities beyond the available resources (Eisenmann, 2013:1). The word "pursuit" in the definition implies a relentless focus where entrepreneurs perceive a short window of opportunity and have to show tangible progress with the hope of realising profitable outcomes with their actions (Eisenmann, 2013:1). Eisenmann (2013:1) expounds on the word "opportunities" by adding that it refers to something that is novel, for example an innovative product, a new business model, improvement of an existing product or entering a new market or new sets of customers. Additionally, Njoroge and Gathunga (2013:5) are of the view that entrepreneurship is a dynamic process of wealth creation that involves a combination of behavioural factors such as initiative taking, acceptance of risk or failure and the organisation/reorganisation of social and economic factors that transform resources and situations to reach practical outcomes. In line with the existing views, this study defines entrepreneurship as a scholarly field that seeks to understand how "opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what consequences" (Venkataraman, 1997:120). Generally, the different attributes used to describe the entrepreneur or entrepreneurship affirm

the economist's interest in distinguishing the entrepreneur's function from the existing factors of production that include land, labour and capital (Veciana, 2007:25).

Notwithstanding the diversity of definitions of entrepreneurship, the phenomenon is an important initiative for economic growth and development worldwide. Entrepreneurship is recognised as an important undertaking for development due to the impact of several dynamic forces, such as changes in technology, economic fluctuations and demographic changes, influencing new challenges in the market place (Toma, Grigore & Marinescu, 2014:437). The following section briefly discusses the origin of entrepreneurship in economic development.

2.3 ORIGIN OF ENTREPRENEURSHIP

The practice we call entrepreneurship is quite ancient. There is a historical reference to this line of thought that dates from around the eighteenth century. At this time, a group of French thinkers called the physiocrats was laying the foundation for modern economic science (Formaini, 2001:3). Among this group was an influential Irish-born banker, Richard Cantillon (1680–1970), who introduced the term entrepreneur into the literature of economic theory (Peneder, 2009:80; Stevenson & Jarillo, 2007:19). Prior to Cantillon's time, the term entrepreneur had taken on a variety of meanings. The earliest meanings of the word come from the French words *celui qui entreprend*, which means "an active person with initiative" and *entreprendre,* which means, "getting things done" (Formaini, 2001:3). The meaning of the term entrepreneur then evolved to describe the risk and return envisaged by large-scale businesspersons who are contracted to supply by combining different factors of production (Landström, 1999:9). It particularly referred to wealthy individuals who conducted fixed contractual businesses with the state.

Cantillon used the term to identify venturesome individuals who stimulate economic progress through better resource mobilisation (Dees, 1998:1). In the book *Essai sur la nature du commerce en general*, Cantillon analysed how the economic society evolved (Murphy & Murphy, 1986:5). In the analysis, Cantillon identified landowners, entrepreneurs and hirelings as the economic agents in the market (Hébert & Link, 1989:42). According to Cantillon, landowners are those individuals who own land as capital and are financially independent. Entrepreneurs are those individuals who are alert to market discrepancies between supply and demand and who engage in market exchanges for a profit (Carlsson *et al*., 2013:916). Hirelings

assume the role of decision-making to secure contractual guarantees of stable income. Although landowners are regarded as the wealthy, historically placed at the top of the economic operating system, entrepreneurs are central agents in the movement of the economic market (Landström, 1999:10). The practice of entrepreneurship focuses on the activities of the entrepreneur that lead the market to equilibrium (Wennekers & Thurik, 1999:31), also known as perfect market. In a perfect market, buyers and sellers have no influence on the market forces, prices are set by the market itself, and buyers and sellers have complete knowledge of the market and the transactions that occur. Cantillon's economic theory further influenced the development of equilibrium models in classical economic theory (Murphy, Liao & Welsch 2006:18).

2.3.1 Ancient economic growth models

Classical economics gave rise to the modern economic theories of growth and development during a period of the British economic thought dominated by the publications of Adam Smith (Peet & Hartwick, 2015:32). Classical economists were primarily concerned with the dynamic growth of a capitalist economy. They viewed economic growth as a tension between population growth and capital accumulation (Negishi, 2014:11; Ekelund & Hébert, 2013:128). While capital accumulation and technological improvements stimulate demand and efficient division of labour, population growth stimulates demand for food and negatively subjects the economy to the effect of diminishing returns on capital accumulation. The two forces pull in opposite directions so that, in the long run, trends in the economy depend on the strength of the two forces (Ekelund & Hébert, 2013:128). The theory at the base of classical economic models focused on the massive injections of capital to achieve rapid growth in the gross domestic product in the years after World War II (Dang & Phen, 2015:15). Theorists such as Smith and Ricardo made significant contributions to the development of classical economic theory. Their contributions are discussed below.

Adam Smith (1723–1790), widely regarded as the father of classical economic theory, regarded development as an ongoing process during which an efficient division of labour and capital accumulation facilitate economic progress (Peet & Hatwick, 2015:34). Smith began his writings with the lesson that an efficient division of labour is limited to the size of the market (Holcombe, 1998:45). This means that changes in the size of the market would take entrepreneurial innovation in the direction of an increasing division of labour and increased

productivity. Smith argued that efficient division of labour is key to economic development. He felt that products should be made by specialised producers in specialised industrial districts and exchanged through trade and markets. In his view, this system would only be limited by the extent and intricacy of the market system (Peet & Hatwick, 2015:35). Smith believed that breaking the total effort of society into specialised components and having each component specialise in a particular production process could save time. It could also allow for labour machinery with persons doing similar tasks over and over again (Ekelund & Hébert, 2013:128). Essentially, increased output would influence higher wages and the chain reaction would continue to achieve increased capital accumulation.

David Ricardo (1772–1823) developed Smith's theory even further. Although Ricardo agreed with Smith's theory of the division of labour (Peet & Hatwick, 2015:38), Ricardo was more concerned about economic output as a function of the inputs of land, labour and capital (Holcombe, 1998:45). He emphasised that growth cannot be continuous because growth would at some point be limited to scarcity of land, thereby subjecting the production cycle to the effect of diminishing returns (Lowe, 1954:142). Ricardo further asserted that an expansion of population would mean increased demand for food, which would eventually negatively affect the margins of agricultural production. In other words, the producers would be stuck with increasing cost of production while landowners get away with more revenues even though they contribute less to the wealth creation process (Peet & Hatwick, 2015:38). Ricardo's main contribution to the economic theory was the introduction of free trade based on the principle of competitive advantage. The principle of free trade allows marketing to extend beyond country boarders, thereby leading to increasing rate of profit and more efficient division of labour (Peet & Hatwick, 2015:39).

Classical economic theories did not consider the impact of entrepreneurship on economic development, which makes them subject to a number of criticisms. Firstly, classical economists assumed that development depended on productive human agents who acquire knowledge, better health and increased skills (Meier, 2001:16). Ideally, all the economic models gave way to the concept of investing in physical capital to improve production. However, the implementation of classical economic models was met with disturbing market failures despite governments' interventions to minimise their impact (Meier, 2001:17). Consequently, inefficiencies in the market systems brought about mass poverty, unemployment and unequal distribution of income in many countries (Meier, 2001:17). Secondly, classical economists

presumed that by virtue of being humans, people have the general desire to be traders to earn an income; and that profits and rents controlled by the rich minority were the legitimate share of national income (Peet & Hatwick, 2015:46). Technically, these notions glorified the idea that an hour of risk-taking is worth more than that of hard physical labour. Such ideas in a way legitimised selfish motives and undermined other motives, such as the desire to work for the common good (Peet & Hatwick, 2015:47). Stated differently, these views were biased towards the class-committed assumption that the upper class are agents of progress and were sadly expressed by economists under the rubric of scientific theory.

Near the end of the nineteenth century, the concept of diminishing marginal utility prevailed over the equilibrium concept in the classical economy (Murphy *et al.,* 2006:21). Economic theory developed further and became a specialised scientific discipline that moved away from the social concerns of assuring growth of national wealth (macroeconomics) to the role of margins in the efficient allocation of resources (microeconomics) (Peet & Hartwick, 2015:52). The notion of aggregate distribution of output among wages, rents and profits was replaced by a more individualistic approach where much emphasis was placed on prices, output and income distribution in markets as determined by supply and demand (Boyer & Smith, 2001:200). In other words, neoclassical economics assumed that economic development is the ability of an individual to maximise utility or profit (Osei-Hwedie & Kurantin, 2017:84). Its focus was on deriving optimal utility by examining marginal increases in consumption (Engel, 2010:878). The market system was driven by social, political and cultural circumstances and a unique awareness and understanding that such circumstances define entrepreneurship. The neoclassical economic systems regarded the entrepreneurship movement as important and focused less on capital accumulation and more on the novel combination of existing resources (Schumpeter, 1934 cited in Murphy *et al.,* 2006:21). Based on this view, entrepreneurship was regarded as the conscious proposition of innovative goods and services in new markets and new organisational forms with a drive to create, establish and concur (Murphy *et al.*, 2006:21). Schumpeter (1954:964) called this creative destruction. For a while, research in entrepreneurship remained stagnant. This was until after World War II, when the political landscape changed. America's dominance as a super power paved the way for economic activity to resurface. Out of this came two entrepreneurship traditions, namely the German tradition based on Von Thünen and Schumpeter and the Austrian tradition based on Von Mises, Kirzner and Shackle. According to Wenekers and Thurik (1999:31), these traditions share a

common language and heritage with respect to entrepreneurship, but point to different functions for the entrepreneur.

The Austrian view of the entrepreneur made the creative dynamics of the market process its central theme (Douhan, Eliasson & Henrekson, 2007:213). The school of thought emerged around the 1870s through the work of Carl Manger in Vienna (Jacobson, 1992:782). The Austrian thought continued with direct and indirect contributions from scholars such as Ludwig von Mises, Friedrich Hayek, Frank Knight, Joseph Schumpeter and Israel Kirzner. Of these, Israel Kirzner became the strongest critic of the neoclassical theory of equilibrium (Douhan *et al*., 2007:213). Kirzner portrayed an interesting view on the entrepreneurial role in the dynamics of the market equilibrium. He does not out rightly reject the notion of equilibrium. Instead, his theory states that equilibrium is a dynamic process where competitive market forces push the economy towards equilibrium rather than from a state of equilibrium. Consequently, in order to remain competitive in a dynamic market environment, Kirzner (1973:17) describes the entrepreneur as someone with the attribute of "alertness to opportunities." Entrepreneurial alertness to opportunities allows certain individuals to notice profit opportunities that others do not (Holcombe, 1998:49). Additionally, Kirzner's theory held that opportunities exist in the presence of disequilibria. In perfect equilibrium, competition loses its meaning (Douhan *et al*., 2007:214). Accordingly, the notion of competition was very important for Kirzner because the essence of entrepreneurship is inherent in the competitive market processes (Kirzner, 1973:17).

The German tradition, also known as the Schumpeterian tradition, described the entrepreneur as a creator of instability. The Schumpeterian entrepreneur is innovative and his innovative activities are classified by technological ease of entry in an industry (Malerba & Orsenigo, 1995:47). An innovative entrepreneur is able to create new products, new ideas or new processes, or designs new ways of production within an existing industry. Through innovation, an entrepreneur challenges the status quo of existing products and services and sets up new ones. The actions of the entrepreneur disrupt the operation of the market and move it away from equilibrium (Jacobson, 1992:787). For example, every time new products enter the market, the Schumpeterian entrepreneur outcompetes other firms and earns economic profit in the process. The market is therefore not perfect, but rather chaotic, and entrepreneurs constantly provide the market with creative and innovative solutions (McDaniel, 2005:485). Creative ideas, products and services create demand and a dynamic market mechanism that leads to

wealth creation. In Schumpeter's own words, the entrepreneur is someone who is driven by "the motivational forces outside the strict orientation of the neoclassical model of market capitalism" (McDaniel, 2005:186). The contributions of these and other writers laid the foundations for understanding entrepreneurship, its theoretical underpinnings and the empirical research in the field after the neoclassical regime.

2.3.2 Empirical studies in entrepreneurship

Empirical studies on entrepreneurship began in the field of economics as a result of the repeated calls Schumpeter made in the last years of his life to stimulate the study of entrepreneurial history to enrich economics as a discipline (Courvisanos & Mackenzie, 2011:2). Two research fields, namely the role of government and the role of entrepreneurship, emerged from a research field that Schumpeter endorsed (Carlsson *et al.,* 2013:918). These special fields of enquiry led to the establishment of *Harvard's Research Centre in Entrepreneurial History* and the journal *Explorations in Entrepreneurial History*. This movement could not sustain itself for long due to changes in the economic analysis of entrepreneurship. Behavioural scientists later took centre stage in presenting empirical studies on entrepreneurship (Carlsson *et al.,* 2013:918).

In his work titled *The Achieving Society*, McClelland (1961) was one of the first to present empirical studies on entrepreneurship (Carlsson *et al.,* 2013:918). While basing his work on behavioural science theory, McClelland wanted to understand human motivation. Accordingly, McClelland searched for answers to the questions: What causes economic growth and decline? Why are certain societies more dynamic than others? The answers to these questions primarily focus on the importance of norms and values that prevail in any given society, with particular reference to the need for achievement (Cornelius, Landström & Persson, 2006:381). McClelland was of the view that economically developed countries are characterised by a stronger focus on institutional norms and openness towards other people and their values (Cornelius *et al.,* 2006:381). Besides McClelland's work, other behavioural scientists have studied the role of social development, values and education on entrepreneurship and economic development (Geertz, 1963:318; Carlsson *et al.,* 2013:918. This stream of research has led to a body of knowledge focusing on the influence of individual (entrepreneurial) traits on entrepreneurship (Crant, 1996:42; Costa & Mccrae, 1992:653; Gartner, 1989:61; Brockhaus & Horwitz, 1986:25).

The study on personality traits focuses on understanding the entrepreneur, thus, the individual factors embedded in an entrepreneur (Crant, 1996:42; Gartner, 1989:61; Brockhaus & Horwitz, 1986:25; Brockhaus, 1982:39). The concept of personality traits carries a variety of meanings, both in the field of psychology and in common language (Brandstätter, 2011:223). While the term "personality traits" is often used to describe regularities in people's behaviour that explain why they react differently to the same situation (Llewellyn & Wilson, 2003:341), it can also refer to complex, genetically co-determined psychological structures that originate and regulate the individual ways of experience and action (Nicolaou & Shane, 2009:7) and cause behaviour. Still more, Brandstätter (2011:223) is of the view that personality traits are an individual's abilities, attitude, motives and characteristics of temperament that are defined by a person's experience and actions. We use everyday terms to contextualise personality traits. Researchers have grouped these terms to offer a broader perspective by identifying five personality traits, also known as the Big Five personality traits, namely:

- Extroversion – the degree to which a person is outgoing, gregarious and/or sociable
- Neuroticism – the degree to which an individual is prone to mood swings and emotional stability
- Agreeableness – the degree to which a person is easy, reachable and widely liked
- Conscientiousness – the degree of conformity to rules and regulations and hard work
- Openness – the degree of openness to experience (Costa & McCrae, 1992 cited in Llewellyn & Wilson, 2003:342).

Empirical research has suggested a number of individual factors as common characteristics of entrepreneurship (Frank, Lueger & Korunka, 2007:227). Achievement motivations, locus of control and risk propensity have been shown to influence entrepreneurial behaviour (Stewart & Roth, 2001:145; Cromie & Johns, 1983:317; McClelland, 1967:265). Numerous studies in the literature provided support for the assumption that business owners have particular traits that guide their behaviour towards entrepreneurship. A closer look at a number of meta-analytical studies reveals this trend. For example, Stewart and Roth (2001:145) conducted a psychometric meta-analysis to mathematically cumulate the literature on risk propensity differences between entrepreneurs and managers. They found business owners to have greater risk propensity compared to managers. Similarly, in a study that analysed the relationship between achievement motivation and variables associated with entrepreneurship Collins, Hanges and Locke (2004:95) found that achievement motivation was significantly correlated

with both choice of an entrepreneurial career and entrepreneurial performance. Zhao and Seibert (2006:259) found significant differences between entrepreneurs and managers on conscientiousness and openness to experiences, small differences on neuroticism and agreeableness, and no differences on agreeableness. The aim of the study was to analyse the relationship between the big five personality traits and the entrepreneurial status of managers and entrepreneurs. Behavioural research on entrepreneurship provides significant evidence to support the argument that personality traits have an impact on new business creation.

Entrepreneurship research has proliferated, as reflected in the numerous journals dedicated to the emerging field. Journals such as *Journal of Small Business Venturing, American Journal of Small Business, Entrepreneurship Theory and Practice, Journal of Business Venturing, Small Business Economics, Entrepreneurship and Regional Development, and Small Business Strategy* emerged between 1963 and 1990 and became the leading journals on entrepreneurship (Cooper, 2003:23). More work was published on entrepreneurship after 1999, with topics such as entrepreneurial process, existence, discovery and exploitation of entrepreneurial opportunities; new venture formation; the social environment; and new venture finance taking centre stage (Carlsson *et al.,* 2013:922). Among these studies, research on entrepreneurial opportunities is argued to be the core of entrepreneurship research (Shane & Venkataraman, 2000:217). The next section discusses the importance of entrepreneurship.

2.4 IMPORTANCE OF ENTREPRENEURSHIP

The importance of entrepreneurship for economic growth and development cannot be overemphasised (Naudé, 2013:4; Stam & Van Stel, 2011:80). Policy makers, researchers and the public are generally aware of this. There is an increasing awareness of the significance of entrepreneurship due to new opportunities and threats that arise from several dynamic forces such as technological disruptions, demographic changes, or fluctuating economies (Toma *et al.,* 2014:437). Entrepreneurship has widely been acknowledged as one of the mysterious forces of human nature (Naudé, 2013:1; Austin, Stevenson & Wei-Skillern, 2006:520). It is also one of the fastest growing fields of study in the areas of economics and management (Naudé, 2010:1). It is one of the main vehicles for economic development, with the activities of an entrepreneur operating as the engine for economic growth (Herrington *et al*., 2010:12; Anokhin, Grichnik & Hisrich, 2008:117; Dejardin, 2000:2). In other words, entrepreneurial activities affects economic development by inspiring structural transformation that change

countries from low-income primary-sector-based societies to high-income service and technology-based societies (Naudé, 2008:1). Nevertheless, Schumpeter argues that entrepreneurship disturbs the status quo, with the entrepreneur being the heroic maverick (Basu & Virick, 2008:182). Most importantly, the innovative nature of entrepreneurship is a crucial element of sustained prosperity (Henry, Hill & Leitch, 2003:3).

Current theories on entrepreneurship see the phenomenon as a unique factor in the development and well-being of societies worldwide (Abu-Saifan, 2012:22). Growth models, such as Solow's model successfully demonstrate the evolution of growth policy from the neoclassical framework of physical capital towards knowledge capital as a result of globalisation (Fanti & Manfredi, 2003:103). Within this context, entrepreneurship offers significant opportunities for individuals to achieve financial independence and to benefit the economy by contributing to job creation, innovation, and economic growth (Basu & Virick, 2008:182). In the same vein, Kilic and Keles (2013:385) posit that entrepreneurship enhances the competitive strength of an economy as new entrepreneurial activities, such as starting a new business or reorienting an existing one, boosts productivity. Therefore, increased entrepreneurial activities could directly translate to high levels of economic growth and development.

Similarly, policy makers have recognised entrepreneurship as an important endeavour for economic development and labour employment in both developed and developing economies (Busenitz, West, Shepherd *et al.*, 2003:286). As noted by Oosterbeek, Van Praag and Ijsselstein (2010:442), policy makers in Europe and the United States are of the view that entrepreneurship has to be encouraged to improve levels of economic growth and development. Following these arguments and assertions, the importance of entrepreneurship can never be overemphasised. In an earlier study, Van Praag and Versloot (2007:351) investigated the extent to which empirical evidence can substantiate the importance of entrepreneurship to the economy. They found that entrepreneurship has a specific and important function in the economy in that it creates employment, brings about production and growth, and commercialises high quality innovations. One can therefore conclude that entrepreneurship is vital for economic growth and development, although the extent to which this yields positive outcomes depends on either the level of entrepreneurial activity and/or type of entrepreneurship engaged.

2.5 ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

The topic of the impact of entrepreneurship on economic growth has generated substantial literature in the past decades (Carree & Thurik, 2003:437). Prior to the 20th century, explanations of economic growth focused on the degree to which the industry structure utilised scarce resources efficiently (Carree & Thurik, 2003:438). Most developed economies attained success by large companies conforming to the code of the industrial society as expressed in six essential principles, namely standardisation, specialisation, synchronisation, concentration, maximisation and centralisation (Toma *et al.*, 2014:439). However, from the 1970s and 1980s the primary driving force of economic activity slowly moved away from relying on the performance of large firms to that of small firms, with entrepreneurship being the central mechanical force (Toma *et al.*, 2014:439). Dynamic economic changes such as globalisation, changes in technology, high degrees of uncertainty and changes in consumer demands seem to be the underlying cause of the shift in the industry structure (Toma *et al.*, 2014:439; Braunerhjelm, 2010:1). There is evidence that small businesses are the key contributors to economic growth and welfare. The establishment and growth of the Fortune 500 American small firms their accomplishing a decrease in unemployment levels from 20 percent to 8.5 percent between 1970 and 1996 serves as an example (Carree & Thurik, 2003:438; Carlsson, 1999:99). Additionally, factors such as the success of the Fortune 500 American small firms influenced policy makers, international organisations and governments to reconsider their reliance on large companies as the key resource for economic growth and development (Carree & Thurik, 2003:438).

The relationship between entrepreneurship and economic growth/development is still a topic of debate despite the significant attention given to this line of research (Toma *et al.*, 2014:437; Acs, 2006:101). There is limited research output where the impact of entrepreneurship on national economic growth and development was deliberately tested (Carree & Thurik, 2003:437). Researchers observe that existing findings are restricted to measuring the impact of entrepreneurial activities on firm establishment, growth and survival (Caves, 1998:1947; Dess, Lumpkin & Covin, 1997:677; Sutton, 1997:40). The Global Entrepreneurship Monitor (GEM) has embarked on a new wave of research that measures the impact of entrepreneurship on economic output at the national level (Reynolds, Hay & Camp, 1999:4). The GEM is a research programme started in 1999 with ten developed and developing countries participating. The objectives are to measure differences in the level of entrepreneurial activity among countries,

to uncover factors that determine national levels of entrepreneurial activity, and to identify policies that may enhance national levels of entrepreneurial activity (Ali, Brush, De Castro *et al.*, 2011:10). Since its start, many researchers all over the world have used GEM data. By the year 2009, the number of countries participating in the GEM rose to 54 (Ali *et al.*, 2011:10). According to Acs (2006:98), continued research to understand the impact of entrepreneurship on economic growth may require a distinction between entrepreneurial activities that yield positively results and those that yield negative results. While using the GEM data to identify the effect of entrepreneurial activity in 11 countries, Acs (2006:101) found that the effect of necessity entrepreneurship versus opportunity entrepreneurship varies greatly, with opportunity entrepreneurship having a much more profound effect on economies when compared to necessity entrepreneurship. Opportunity entrepreneurship involves starting a business with the perception that a business opportunity is underexploited or has been overlooked. Necessity entrepreneurship is when people engage in entrepreneurship due to lack of alternative employment choices. Acs (2006:101) further highlights that individuals who engage in opportunity entrepreneurship do so voluntarily and such ventures produce more high growth firms that positively contribute to the economy. Therefore, the ratio of opportunity-to-necessity entrepreneurship is a key indicator of economic development (Acs, 2006:101). In other words, the more a country's population becomes involved in opportunity entrepreneurship compared to necessity entrepreneurship, the better the country develops economically.

2.6 THE DISCOVERY AND CREATION THEORIES OF ENTREPRENEURSHIP

Discovery and creation theories of entrepreneurship refer to the process through which entrepreneurial opportunities are formed and exploited (Alvarez, Barney & Anderson, 2013:303). Entrepreneurial opportunities are defined as those situations where economic value is generated through the production of goods, services, raw materials and organising methods that are sold in the market at prices greater than the cost of production (Shane & Venkataraman, 2000:218). In other words, opportunities arise when there are imperfections in the product and factor markets (Venkataraman, 1997:119). Essentially, discovery and creation theories explain entrepreneurial behaviour in the literature (Gaglio & Katz, 2001:95; Sarasvathy Dew, Velamuri & Venkataraman, 2003:141). Discovery and creation theories are examples of teleological theories of human action (Alvarez & Barney, 2007:14). These theories explain how human

behaviour affects people's ability to accomplish their goals. More precisely, teleological theories explain behaviour while taking into account the nature of human objectives in determining entrepreneurial opportunities, the nature of individuals (entrepreneurs), and the nature of the context within which decisions are made (Alvarez & Barney, 2007:14). Table 2.4 provides a summary of the aforementioned assumptions.

Table 2.4: Central assumptions of the discovery and creation theories of entrepreneurial action

	Discovery theory	**Creation theory**
Opportunities	Opportunities exist independent of entrepreneurs. Applies a realistic philosophy.	Opportunities do not exist independent of entrepreneurs. Applies an evolutionary realistic philosophy.
Entrepreneurs	Differ in some important ways from non-entrepreneurs, *ex ante.*	May or may not differ from non-entrepreneurs, *ex ante*. Differences may emerge *ex post*.
Decision-making	Risky.	Uncertain.

Source: Alvarez & Barney (2007:15)

A common feature of these assumptions is that both discovery and creation theories explain entrepreneurial actions guided by the existence of opportunities in an imperfect market (Shane & Venkatraman, 2000:211). However, a closer look at the stated assumptions highlights the unique perspective of each theory. For instance, discovery theory postulates that opportunities arise as a result of competitive imperfections in the market that are reciprocally caused by exogenous factors such as technology or consumer preference (Alvarez & Barney, 2007:16). Furthermore, discovery theory assumes that only certain individuals discover opportunities due to the objective nature of such opportunities. Discovery theory assumes that entrepreneurs have the required information and knowledge of the probability of possible outcomes needed to make a decision. The decision-making context is characterised as risky.

The discovery theory of entrepreneurial process became instrumental in three important research traditions, namely Austrian economics, research on opportunity recognition and research on individual differences between entrepreneurs and non-entrepreneurs (Alvarez *et al.,* 2013:303). According to the Austrian economists, the entrepreneurial discovery process is

associated with an individual's ability to identify consumer needs and determine new ways of fulfilling that particular need. Therefore, new discoveries are deemed valid only when four conditions are met: the existing need was not fully met; the new discovery has the ability to meet the need; the entrepreneur has prior knowledge of the link between the new discovery and the existing need; and potential buyers become aware of the link between their existing need and the new discovery (Koppl & Minniti, 2003:218). Theorists from the field of psychology viewed the discovery theory of entrepreneurship from the perspective that individual differences exist between entrepreneurs and non-entrepreneurs (Brockhaus, 1980:509; McClelland, 1965:389). Some researchers use factors such as a need for achievement, risk-taking propensity, locus of control and self-efficacy to explain why some people are more alert to opportunities (Alvarez *et al.*, 2013:304; Hansemark, 2003:302; Baron, 2000:15; Shane & Venkataraman, 2000:448; McClelland, 1965:389). Personality traits have been used to explain the agile actions of entrepreneurs for many years (Zhao, Seibert & Lumpkin, 2010:381). However, this interest has died down in the last 20 years. Previous researchers argued that there is no consistent relationship between personality traits and entrepreneurship and therefore, suggested that future research should be abandoned (Gartner, 1989:48). It is only recently that this interest re-emerged. Scholars suggest that the contradictory findings in the earlier literature on personality and entrepreneurship could be attributed to a lack of theoretically derived hypotheses and various research artefacts (Zhao *et al*., 2010:382). Nevertheless, despite its re-emergence, there is still little knowledge as to which personality traits influence a person's intentions to engage in entrepreneurship (Rauch & Frese, 2007:353). Besides the questions raised on the credibility of personality traits and entrepreneurship research, behaviours such as opportunity recognition, opportunity exploitation, innovation, and value creation have been found to be consistent with individual differences in determining entrepreneurial success (Ahmetoglu, Leutner & Chamorro-Premuzic, 2011:1028; Shane & Venkataraman, 2000:218).

The discovery theory of entrepreneurship evolved further through the work of Israel Kirzner (Alvarez *et al.*, 2013:304). While building on the work of the Austrian economists and scholars in psychology, Kirzner highlights the notion of "opportunity alertness" as the key defining feature that differentiates entrepreneurs from non-entrepreneurs (Tang, Kacmar & Busenitz, 2012:77). Alertness is defined as an individual's ability to identify opportunities that have been overlooked by others (Kirzner, 1979:7). Accordingly, Kirzner associates entrepreneurial discovery with the entrepreneur's ability to detect competitive imperfection resulting from a misalignment in prices across two or more markets (Alvarez *et al.*, 2013:304). Consistent with

this view, Shane and Venkataraman (2000:220) remark that entrepreneurial opportunities should be discovered. However, one should not assume that their availability is known to all individuals at all times. This is a reality that explains the objective nature of entrepreneurial opportunities. Similarly, Venkataraman (1997:120) explains that opportunities are discovered through the dispersion of information due to an individual's own circumstance or experience. Consequently, entrepreneurial profit is earned when the speculation is acted upon and found to have been correct. It is interesting to note that the availability of these opportunities and the ability for an individual to exploit and\or discover them has significant implications for entrepreneurial actions (Alvarez & Barney, 2007:12). The discovery of entrepreneurial opportunities is subject to an individual's exposure to relevant information and the cognitive ability to convert this knowledge into something profitable. Social constructivists and opportunity creators believe that human beings are able to construct their own knowledge by interpreting multiple perspectives of the world, rather than by replicating only one true perspective.

Unlike the assumption made by discovery theory, opportunity creation theory assumes that the entrepreneurs themselves (Alvarez *et al.,* 2013:307) construct opportunities. Creation theory finds its roots social constructionism, which argues that all knowledge, from common day-to-day experiences to very sophisticated scientific results, is derived from human interactions that give meaning to the world around us (Paloniemi & Belt, 2015:1). In the same way, knowledge is generated through social construction. Opportunities to generate economic wealth become meaningful for entrepreneurs once they become part of the socially constructed reality of the society in which they live (Alvarez *et al.*, 2013:307). The opportunity creation theory explains the existence of opportunities as subject to an individual's endogenous actions (Alvarez & Barney, 2007:18). In other words, in the world of creation theorists, entrepreneurial opportunities are based on idealism with no trace of prior existence, and the future is uncertain.

2.7 MOTIVES FOR ENTREPRENEURSHIP

As discussed in the previous sections, early research on entrepreneurship sought to understand how new businesses are created. Overwhelming evidence from the perspective of psychology suggested that personality traits play a role in the entrepreneurial process (Crant, 1996:42; Gartner, 1989:61; Brockhaus & Horwitz, 1986:25; Brockhaus, 1982:39). Understanding the role of personality traits in determining entrepreneurship is one of the popular topics under

study. Researchers sought to understand the influence of different personal factors, such as achievement orientation, risk taking propensity, internal locus of control, need for achievement, innovativeness or creativity in determining entrepreneurship (Cromie, 2000:7; Busenitz, 1999:323; Engle, Mah & Sadri, 1997:45; Miner, Smith & Bracker, 1994:627; McClelland, 1965:389). However, continued research on personality traits faced severe criticism from researchers. While Gartner (1988:11) comments that the entrepreneur described by some of these traits has become larger than life, while some other trait would fit the description of a common person such as a manager, Llewellyn and Wilson (2003:343) highlight the issue of an ineffective measurement approach. Ideally, there should be a statistical measure that demonstrates reasonable internal reliability, in other words a Cronbach's alpha coefficient of ≥ 0.7 and evidence of contract validity. Other researchers criticised the existing research output for the small samples used for overall generalisation of results (Rauch & Frese, 2007:353). That being the case, researchers came to the conclusion that the influence of personality traits on entrepreneurship cannot be explained by isolated traits, but rather by an examination of a variety of traits (Frank *et al.,* 2007:229). Furthermore, a re-emergence of this line of research is considered possible if researchers argue for appropriate theoretically derived hypotheses and research techniques (Zhao *et al.,* 2010:382).

Besides personality traits, the literature provides some interesting insights into the influence of contextual factors on new business development (Turker & Sonmez Selçuk, 2009:143). These are factors that pertain to one's environment and may include cultural, social, economic, political and technological factors (Amos, Oluseye & Bosede, 2015:3). Other factors, such as a person's image of entrepreneurship, work experience and entrepreneurial conviction have also been supported as factors determining entrepreneurship (Lüthje & Franke, 2003:137). Generally, most of these studies are based on sample of professionals and as such, they cannot be generalised to university students. Studies that did incorporate students in samples for research on business founding focused on understanding the impact of entrepreneurial image and on including entrepreneurship as a subject in the curriculum. For example, a study by Autio Keeley, Klofsten *et al.* (2001:145) investigated the influence of entrepreneurial image on students in Asia, Scandinavia and USA and found that entrepreneurial image and support from a university setting has a significant influence on career choice. Although there is a body of literature on the impact of psychological and contextual factors on entrepreneurship, Gartner (1988:11) argues that there is no significant link between personality traits and entrepreneurial behaviour to warrant future research. This removed the entrepreneur from the picture and

created space to consider contextual factors without the presence of the entrepreneur personality to complete the chain of arguments (Herron & Sapienza, 1992:50). However, many authors argued that the entrepreneur forms an integral part of new business creation and removing the individual from the picture would derail the whole process of investigation (Herron & Sapienza, 1992:49). Consequently, behavioural psychologists started arguing new ways of modelling and testing the human part of new business creation (Boyd & Vozikis, 1994:64; Herron & Sapienza, 1992:49; Gartner, 1989:61). This line of thought opened a new research avenue that analyses the cognitive process for entrepreneurship (Boyd & Vozikis, 1994:64; Bird, 1988:442). Theorists from social psychology have proposed an intentions framework that focuses on the conscious and intended act of new venture creation (Boyd & Vozikis, 1994:64).

2.8 ENTREPRENEURIAL INTENTIONS

Intention theory is founded on cognitive psychology and could be described as a function that links beliefs and subsequent behaviour (Boyd & Vozikis, 1994:64). Research based on a cognitive approach has had impressive success in other fields of study, such as psychology and education (Naffziger, Hornsby & Kuratko, 1994:29); and extending these predictions to the field of entrepreneurship may also yield positive results (Baron, 2004:237). The application of such techniques to the field of entrepreneurship has yielded fruitful avenues for broadening entrepreneurship (Baron & Ward, 2004:553). In the same vein, the literature highlights a stream of researchers that have developed entrepreneurial cognitive models based on established theories from social psychology (Boyd & Vozikis, 1994:64; Krueger & Brazeal, 1994:91; Naffziger *et al.*, 1994:29; Herron & Sapienza, 1992; Bird, 1988:443). The most popular area of research links attitudes and behaviour with intentions as integrating factors. Figure 2.1 illustrates the basic entrepreneurial intentions model.

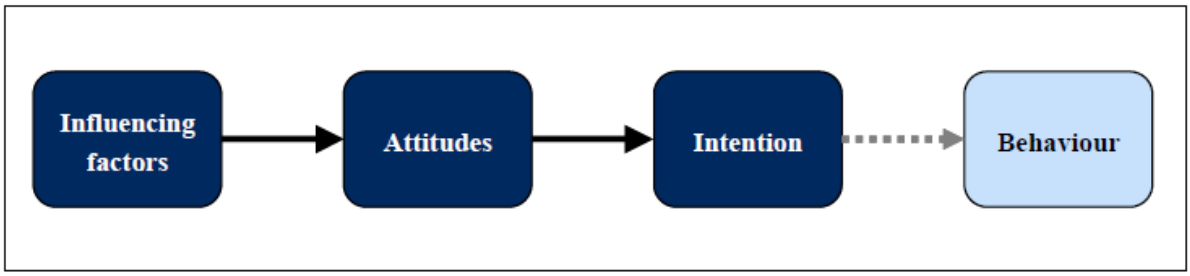

Figure 2.1: Basic entrepreneurial intentions model

Source: Boyd & Vozikis (1994:64)

Figure 2.1 illustrates the relationship between behavioural intentions. Boyd and Vozikis (1994:64) explain a chain of command takes effect leading to the fruition of a particular behaviour. Firstly, it is clear that one has to develop strong intentions for a particular behaviour to manifest. In a book titled *Attitudes, Intentions and Behaviour*, Fishbein and Ajzen (1975:369) contend that factors such as the degree to which intention and behaviour are at the same level of specificity, the stability of the intention overtime, and the degree to which the person will carry out the intention would influence the effect of this relationship. Studies in psychology literature identify intentions as the best predictor of planned behaviour, especially if the behaviour is rare, hard to observe and/or involves unpredictable time lags (Radipere & Ladzani, 2014:190; Krueger, Reilly & Carsrud, 2000:411).

Secondly, putting subsequent behaviour aside, a wide range of factors trigger intentions. These factors are labelled antecedents to intentions (Bird, 1988:443). They may include situational (non-motivational) factors or cognitive (motivational) factors (Lee & Wong, 2004:7; Boyd & Vozikis, 1994:64). According to the literature, Bird (1988:443) was the first to advance the theoretical proposition about the antecedents to intentionality. Bird (1988:443) describes intentions as a state of mind that is action-oriented and directs behaviour towards achieving a specific goal. Bird (1988:443) understands the intentionality process as being triggered by personal, economic and social factors such as needs, values, beliefs, changes in markets, and government regulations. Furthermore, Bird (1988: 443) suggests that these thought structures (antecedents) might also direct one's desire towards the creation of a formal business. Entrepreneurial intentionality may also incorporate contextual and personal factors that may explain why some people choose to engage in entrepreneurial behaviour (Boyd & Vozikis, 1994:67). Additionally, Krueger *et al.* (2000:411) are of the view that entrepreneurship as a way of thinking capitalises on opportunities instead of addressing threats. Opportunity

identification is an intentional process. Although entrepreneurial ideas for new products or services may begin with inspiration, sustained intentions are needed for the ideas to become manifest (Bird, 1988:442). Therefore, understanding entrepreneurial intentions offers a better means of explaining and predicting entrepreneurship (Krueger *et al.*, 2000:411). The next section discusses entrepreneurial intentions models widely discussed in the extant literature.

2.9 MODELS OF ENTREPRENEURIAL INTENTIONS

Previous researchers have developed a number of models on intentions to explain entrepreneurial behaviour. According to Krueger *et al.* (2000:412), models on intentions provide practical insights into how any planned behaviour is formed. The dominant models include Shapero's entrepreneurial event models (SEE), Ajzen's theory of planned behaviour (TPB), the entrepreneurial potential model (EPM), and Davidsson's model (Guerrero, Rialp & Urbano, 2008:37). Figure 2.2 illustrates the evolution of models on intention.

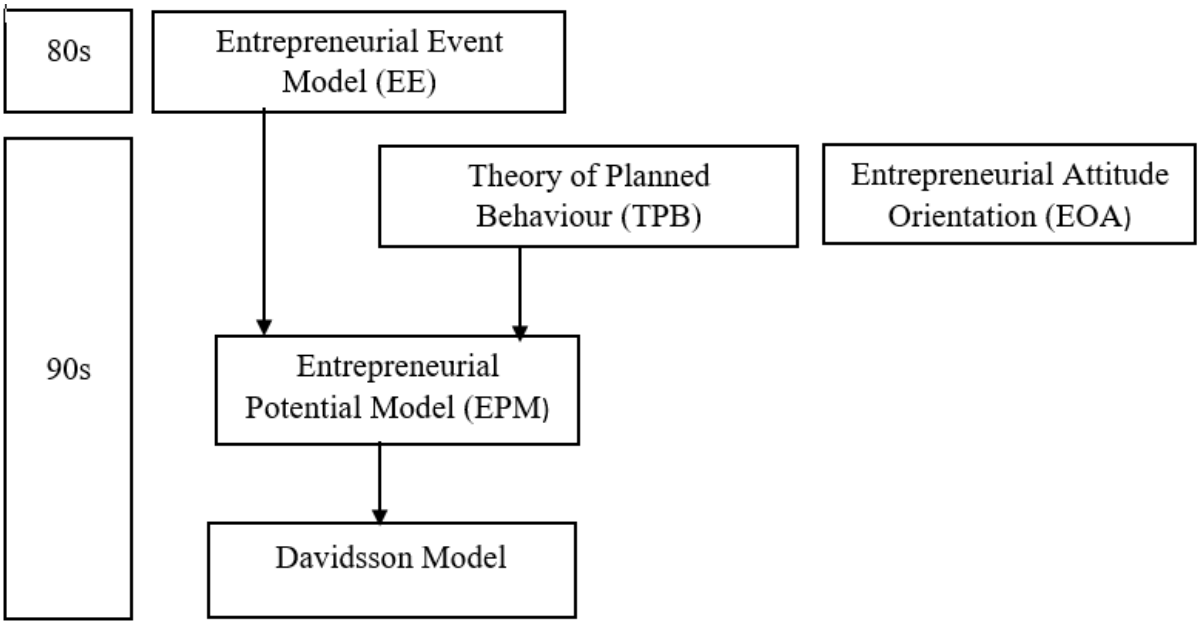

Figure 2.2: Evolution of entrepreneurial intention models

Source: Guerrero, Rialp & Urbano (2008:37)

Figure 2.2 shows the entrepreneurial event model (EEM) as the first intentions model developed by Shapero in 1982 (Guerrero *et al*., 2008:37). The EEM, also known as Shapero's entrepreneurial event model (SEE) explains business creation as an activity involving the

interactions between the cultural and social factors that can lead to business creation (Miralles, Riverola & Giones, 2012:485). Nine years later, Ajzen (1991:182) developed the TPB as an extension of the theory of reasoned action (TRA). In the psychological literature, TRA has found significant support for use to predict various human behaviours (Mishra, Akman & Mishra, 2014:30). Following Shapero's ground-breaking work on intentions formation, other models, such as EPM and Davidsson's model emerged. Krueger and Brazeal (1994:95) developed the EPM by combining concepts from the SEE and TPB models. In simple terms, the EPM offers a social psychology perspective of how to conceptualise and test the notion of entrepreneurial potential. Davidsson (1995:5) developed an economic-psychological model to determine entrepreneurial intentions among 30- to 40-year-old Swedish subjects. The model was designed to test the influence of personal background, general attitudes, domain attitudes, conviction and situations on entrepreneurial intentions (Davidsson, 1995:5). The results of the study supported the relationship suggested by the model, with the model showing high explanatory power for the influence of conviction on entrepreneurial intentions (Davidsson, 1995:1). The following sections briefly reflect on the dominant models of behavioural intentions and reflect on a number of studies that have tested the applicability of these models.

2.9.1 Shapero's entrepreneurial event model (SEE)

Shapero's entrepreneurial event model assumes that people are set on a particular path of life that predicts behaviour until negative or positive displacement happens to interrupt that inertial, for example job loss or an inheritance (Krueger & Brazeal, 1994:91). In other words, "displacement", whether positive or negative, is the foundation of the quickening power that influences transformation of particular behaviour (Uygun & Kasimoglu, 2013:26). Therefore, a displaced individual makes a decision on the alternative choices that would yield the best results. Figure 2.3 provides a graphical representation of the SEE.

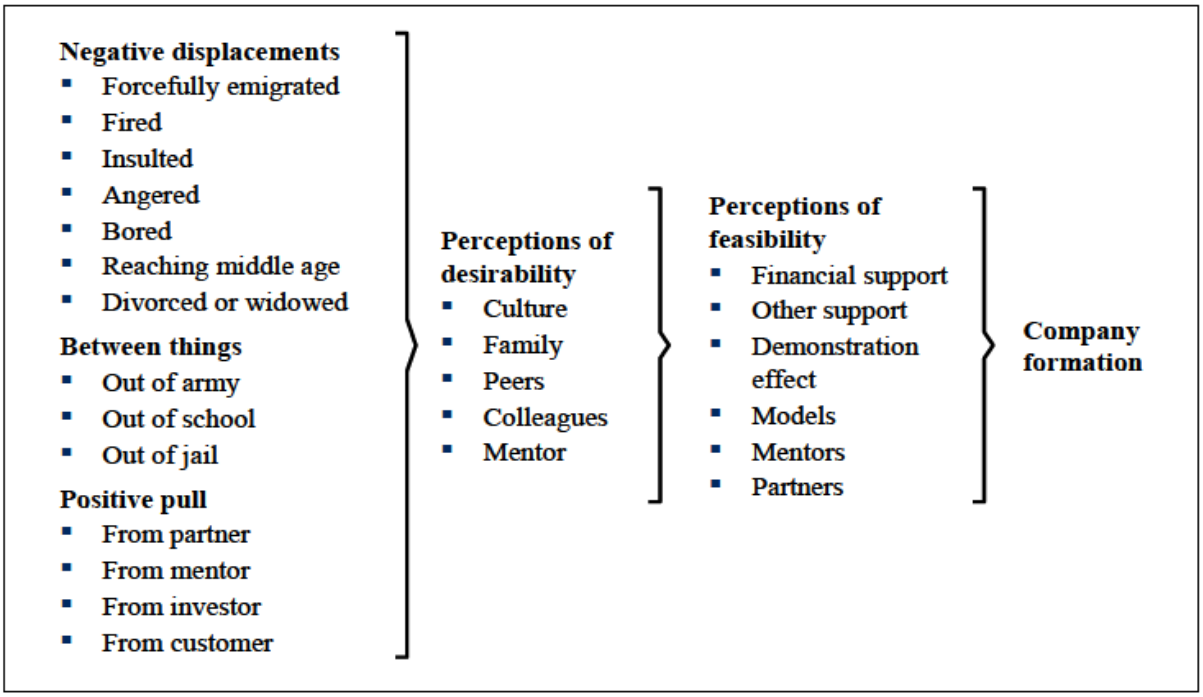

Figure 2.3: Shapero's entrepreneurial events model (SEE)

Source: Shapero & Sokol 1982:80)

As depicted in Figure 2.3, Shapero and Sokol (1982:80) explain three factors that influence personal choice to start a new business and that determine entrepreneurial intentions, namely perceived desirability, propensity to act and perceived feasibility. Perceived desirability and feasibility explain the interaction of cultural and social factors that influence individual perceptions of business creation (Miralles *et al.*, 2012:485). For instance, an entrepreneurial event is perceived desirable based on an individual value system such as personal attitude, values, feelings, family, peer groups, educational and professional contexts (Refaat, 2009:162). On the other hand, perceived feasibility refers to the viability of an entrepreneurial venture due to the availability of adequate resources such as financial support, moral support, necessary skills and labour (Refaat, 2009:163). Propensity to act is the personal disposition to act on one's decision while reflecting on the volitional aspects of intentions (Miralles *et al.*, 2012:485).

2.9.2 Theory of planned behaviour

Ajzen (1991:181) developed a conceptual model suggesting that intentions to engage in a particular behaviour result from three independent antecedents, namely attitudes towards behaviour, subjective norms and perceived behavioural control. This model was termed the *Theory of planned behaviour* (TPB). The model explains an individual's intentions as the

central factor influencing a given behaviour (Ajzen, 1991:181). In other words, intentions towards behaviour is determined by attitudes towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 1991:181). Accordingly, the stronger the intention to engage in particular behaviour, the more likely it would be that the behaviour would manifest. See Figure 2.4 for a graphical presentation of the TPB.

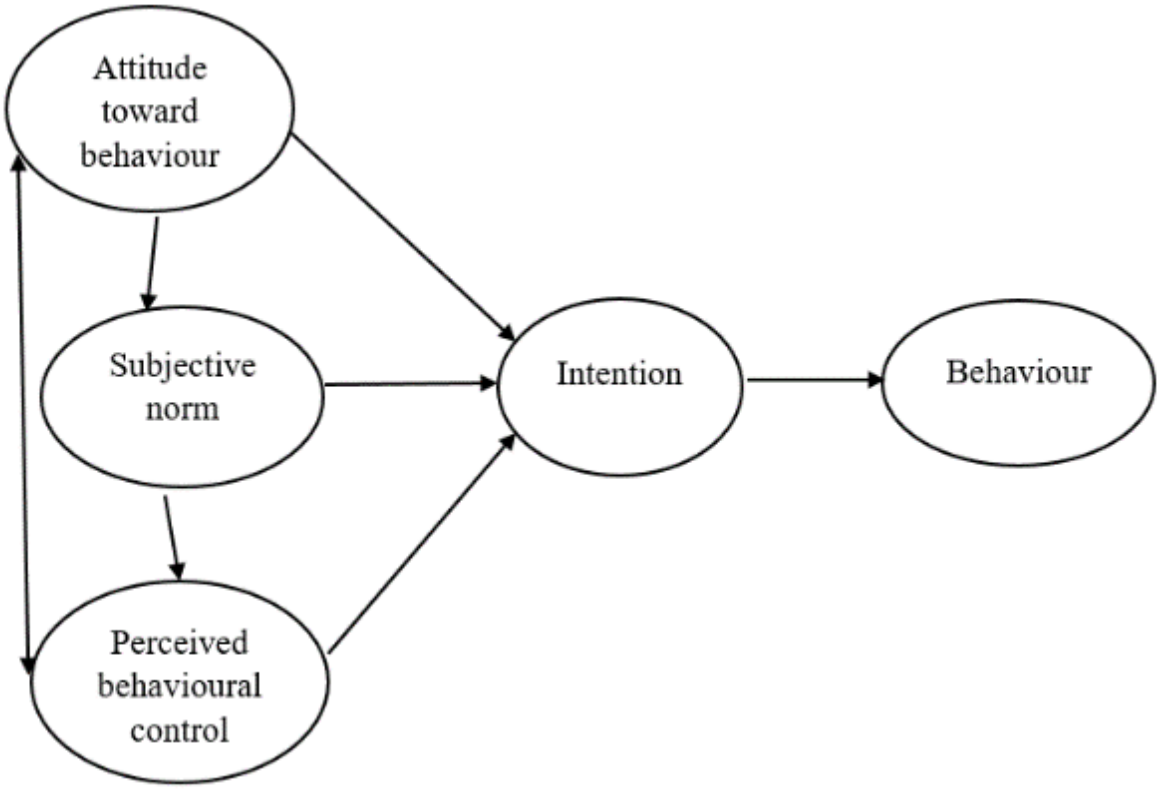

Figure 2.4: Ajzen's theory of planned behaviour
Source: Ajzen (1991:181)

According to Figure 2.4, the three key elements or antecedents to the model explain the unique impact of intention towards a particular behaviour (Krueger & Brazeal, 1994:93). Attitude towards behaviour reflects the perceptions of the personal desirability of performing a particular behaviour based on intrinsic and extrinsic personal outcomes. Subjective norms indicate the extra-personal influences on the decision maker. Perceived behavioural control describes the personal perception of the feasibility of behaviour. The impact of these antecedents can manifest at the same time or independently from each other to influence subsequent behaviour.

2.9.3 A selection of previous research output on the intentions models

Numerous studies worldwide have adopted intentions models to determine entrepreneurial intentions among various samples and produced quite diverse but significant results. For example, Kolvereid (1996:47) applied the TPB to predict employment choice among 128 Norwegian undergraduate business students. The study findings revealed a strong support for perceived behavioural control, attitudes towards behaviour and social norms on students' intentions towards employment choices. Other factors, such as gender, experience and family background, had an indirect influence on entrepreneurial intentions.

Krueger *et al.* (2000:412) tested the relative ability of the TPB and Shapero's model of entrepreneurial intent to determine entrepreneurial intentions among senior university business students. Despite Shapero's model showing a higher R^2, every component in Shapero's model showed significant support for entrepreneurial intentions compared to Ajzen's model. The latter only showed positive significant results for *attitudes towards behaviour* and *perceived behavioural control* and insignificant results for *social norms*. However, although the TPB proved to be a little less superior in explaining entrepreneurial behaviour, reasons for this failure are highly speculative and would require further research to be justified (Krueger *et al.,* 2000:424). The TPB is equally useful for determining entrepreneurial intentions (Krueger *et al.,* 2000:424).

In another study, Autio *et al.* (2001:145) applied the TPB to a group of students from Finland, Sweden, the United States of America and the United Kingdom. The study aimed to analyse the factors that would influence entrepreneurial intentions among university students from a highly heterogeneous cultural environment. Similar to Krueger's study results, Autio *et al.* (2001:154) found that *attitudes towards behaviour* and *perceived behavioural control* was positively significant and *subjective norms* was weakly significant with respect to entrepreneurial intentions.

A group of researchers attempted to develop a new theory-based and statistically robust entrepreneurial intentions scale based on items from the TPB and the theory of social capital (Liñán & Chen, 2006:6; Liñán & Santos, 2007:443; Liñán & Chen, 2009:594; Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2010:1). The underlying motive for this line of research was to address the weaknesses found in many of the existing tests that measure entrepreneurial intentions based on the TPB. According to Liñán and Santos (2007:445), 11 out of 19 empirical

tests at that time found the regression coefficient for the variable *social norm* to portray negative or non-significant results in explaining entrepreneurial intentions. As a result, Liñán and Santos (2007:446) suggest the replacement of *social norm* with *social capital theory* and a reformulation of Ajzen's intentions model. Following the same of line thought, Liñán and Chen (2009:593) use Ajzen's model to build a more standardised, statistically robust and theoretically sound entrepreneurial intentions questionnaire. Although there was a body of research on entrepreneurial intentions, Liñán and Chen (2009:593) argue that most existing research includes *ad hoc* research instruments and comparisons of these studies would be problematic. Furthermore, Liñán and Chen (2009:593) observe that previous research mainly used linear regression models to test the effect of the relationship. However, understanding specific patterns of relationships among the motivational antecedents to Ajzen's model is important. Besides confirming the direct relationships between *attitudes towards behaviour* and *perceived behaviour control* with entrepreneurial intentions found in previous studies, Liñán and Chen (2009:607) find that *social norms* have an indirect relationship with entrepreneurial intentions. Therefore, a more robust structural equation technique was needed to overcome some of the previous research limitations. Overall, the work by Liñán and Chen (2009:607) showed support for the use of the TPB in determining entrepreneurial intentions.

Wang, Lu and Millington (2011:35) investigate the influence of the *propensity to act, perceived desirability* and *perceived feasibility* on entrepreneurial intention based on the SEE model to identify entrepreneurial intentions among college students in China and USA. The study results revealed a significant and positive influence. However, some tests on the model revealed mixed results with reference to students' perceptions of levels of feasibility and desirability for business creation (Guerrero *et al.,* 2008:35). A majority of students perceived new business creation as a desirable act, thereby indicating strong statistical support for the model (Guerrero, 2008:35).

Kautonen, Van Gelderen and Tornikoski (2013:697) mainly concentrate on testing the applicability of Ajzen's TPB based on business intentions. The findings of a longitudinal study that collected survey data between 2006 and 2009 among the working-age population in Finland supported the predictions that *attitude, perceived behavioural control* and *subjective norms* are significant predictors of entrepreneurial intention. The study also found that *intention* and *perceived behavioural control* are significant predictors of subsequent behaviour. Similarly, a recent longitudinal study by Kautonen, Gelderen and Fink (2015:655) among the

adult population in Australia and Finland supported the relevance of Ajzen's TPB in the context of business start-up behaviour. All relationships hypothesised in the study were positive and significant, thereby supporting the argument that, although the TPB has been applied in numerous previous studies with many of them supporting its relevance, subsequent actions can now be applied with demonstrated validity (Kautonen *et al.,* 2015:670).

2.10 TYPES OF ENTREPRENEURSHIP

So far, this chapter has dealt with the theoretical frameworks for entrepreneurship. The analysis of the literature reveals that historical reference to entrepreneurship has had a strong bearing on advancing economic value. However, besides the economic value function, various streams of thought such as ecopreneurship, SE and sustainable entrepreneurship were studied to examine entrepreneurship and sustainable development; also known as *sustainability-oriented entrepreneurship* (Mack & Pützschel, 2014:30. Although these dimensions are pictured to holistically explain sustainability-oriented entrepreneurship, there are clear distinctions that relate to their core motivations, main goals and the role of economic goals (Schaltegger & Wagner, 2011:224).

Sustainable entrepreneurship is in essence the realisation of sustainable innovations aimed at the mass market and providing benefit to the larger part of society (Schaltegger & Wagner, 2011:223). In other words, sustainable entrepreneurship does not limit its developmental goals to the needs of the organisation, but rather focuses on the triple bottom line and seeks to achieve social benefits, economically viable organisations and a reduction of the environmental degradation simultaneously (Mack & Pützschel, 2014:30). Ideally, entrepreneurs play the role of addressing the needs of a larger group of stakeholders whose demands go beyond the narrow economic interests of shareholders (Figge *et al.,* 2002:269).

Ecological entrepreneurship, also known as ecopreneurship, aims at earning money through contributions to solving environmental problems and by creating economic value. While economic goals are the ends to the business strategy, environmental goals remain an integral part of the economic logic of the business (Schaltegger & Wagner, 2011:224). Furthermore, ecopreneurial organisations have the challenge of integrating environmental performance into the economic business logic (Hockerts & Wüstenhagen, 2010:482).

Institutional entrepreneurship includes entrepreneurial initiatives that contribute to the transformation of institutions (Zahra Gedajlovic, Neubaum & Shulman, 2009:519). Ideally, the ambition to bring change to the regulatory, societal and market institutions motivates entrepreneurs to engage in institutional entrepreneurship.

SE is an entrepreneurial activity that is aimed offering solutions to social problems and creating value in society rather than merely maximising individual profit (Tan, Williams & Tan, 2005:353). The primary focus of SE is to provide access to innovation for a specific deprived market segment, particularly those in the context of base-of-the-pyramid innovation in emerging markets and developing economies (Prahalad, 2006:1). This study will conduct a thorough research on the concept of SE. Table 2.5 gives a summary of the characterisation of sustainability-oriented entrepreneurship.

Table 2.5: Characterisation of different kinds of sustainability-oriented entrepreneurship

	Ecopreneurship	Social entrepreneurship	Institutional entrepreneurship	Sustainable entrepreneurship
Core motivation	Contributing to solving environmental problems and creating economic value	Contributing to solving societal problems and creating value for society	Contributing to changing regulatory, societal and market institutions	Contributing to solving societal and environmental problems through the realisation of a successful business
Main goal	Earning money by solving environmental problems	Achieving societal goals and securing funding to achieve this	Changing institutions' as direct goals	Creating sustainable development through entrepreneurial corporate activities
Role of economic goals	Ends	Means	Means or ends	Means and ends
Role of non-market goals	Environmental issues as integrated core element	Societal goals as ends	Changing institutions as core element	Core element of integrated end to contribute to sustainable development
Organisational development challenge	From focus on environmental issues to integrating economic issues	From focus on societal issues to integrating economic issues	From changing institutions to integrating sustainability	From small contributions to large contributions to sustainable development

Source: Schaltegger & Wagner (2011:224)

2.11 CONCLUSION

Defining entrepreneurship is complex. There is a range of issues that researchers have raised concerning the definition of entrepreneurship. While some regard entrepreneurship as a function of the critical roles that the individual entrepreneur plays, others follow the

Schumpeterian idea that entrepreneurship is about opportunity identification and/or creative destruction. Nevertheless, entrepreneurship is important for economic growth and development. The innovative nature of entrepreneurship is recognised as a crucial element for sustained prosperity. Entrepreneurship offers significant opportunities for individuals to achieve financial independence and benefits the economy by contributing to job creation, innovation, and economic growth.

The literature further highlights that the study of entrepreneurship is ancient. Early researchers sought to understand the motives for entrepreneurships. For example, the psychological literature argued for the role of personality traits and contextual factors as determinants of entrepreneurial behaviour. Current research on the subject area proposes an understanding of the intentions framework as the intended motive for new venture creation. Various intentions models were discussed and analysed. Additionally, the literature highlighted Ajzen's TPB as the most cited and applied entrepreneurial intentions model. This study adopts the model to investigate the antecedents to social entrepreneurial intentions among Generation Y university students in South Africa.

CHAPTER 3: THEORETICAL FRAMEWORK FOR SOCIAL ENTREPRENEURSHIP RESEARCH

3.1 INTRODUCTION

This chapter aims to give more insight on SE as an expansion of the discussion in Chapter 2. It begins by highlighting the general role of SE and the need for SE in South Africa. The first part of the chapter argues the meaning of SE and evaluates the existing definition of the concepts of "social entrepreneur" and "social enterprise". The chapter also discusses the origin of SE, both in practice and in academia. It also notes conflicting ideas, controversies and/or disagreements that have shaped research on SE over the years and reflects on the theories that have directed SE intentions research. The chapter concludes by analysing the antecedents to SE.

3.2 BACKGROUND TO THE ROLE OF SOCIAL ENTREPRENEURSHIP

SE is broadly described as a business undertaking that integrates economic and social value creation within markets (Mair & Marti, 2006:2). According to Dees (1998:1), a business-like discipline that combines social mission, innovation and determination is well suited for the current times. SE has become an important social/economic spectacle for both developed and developing countries (Santos, 2012:335; Dacin *et al.*, 2010:37). Social entrepreneurial activities have become relevant in recent years due to the many socioeconomic challenges economies worldwide experience (Sassmannshausen & Volkmann, 2018:251). Generally, when economic decline has adversely affected local communities, SE is needed to regenerate both social and economic activities to satisfy some unmet needs that the state system will not or cannot meet (Zahra *et al.*, 2009:519; Thompson, Alvy & Lees, 2000:328). Essentially, state governments have the duty to put in place regulations, governance structures and other mechanisms to facilitate smooth functioning of the market systems (Mair & Marti, 2009:419). However, governments often abuse their mandate by allowing their systems to maximise profits beyond what is socially acceptable and thus abusing their dominant positions while developing anti-competitive tactics that reduce the value for society (Santos, 2012:341). Such institutional voids are usually filled by NGOs that comprise groups of citizens concerned about a particular social inequality, thereby creating organisations that focus on a redistribution of

resources to minimise the inequality gap (Sud, VanSandt & Baugous, 2009:202). However, the efforts of NGOs have also been challenged by increased competition for the limited financial resources from charities, philanthropists and donations (Bull, 2008:268). Dees (1998:1) further highlights that governmental and major philanthropic institutions have often fallen short in addressing social problems, with many being viewed as inefficient, ineffective, and unresponsive.

As discussed in Chapter 2, the literature highlights commercial entrepreneurship as the dynamic engine that keeps economies evolving in the best possible way to benefit society (Reisman, 2004:56). Yet, the economic function of commercial entrepreneurship also has its shortfalls. Over the years, profit-oriented markets have faced many changes, including advancements in technology, new information generation and new consumer needs that inhibit businesses from adapting due to lack of good fit with the environment or by missing the window of opportunity altogether (Santos & Eisenhardt, 2009:643; Zott & Amit, 2008:1). According to Porter and Kramer (2011:1), the inability of commercial businesses to meet social demand is somehow self-inflicted. Porter and Kramer (2011:1) contend that commercial businesses fail to meet social demand as a result of being trapped in outdated approaches to value creation while focusing on short-term financial performance instead of investing future performance in the most important customer's needs. Consequently, social entrepreneurs provide innovative, effective and sustainable solutions to social problems where government and private organisations have failed (Bacq & Janssen, 2011:374; Nicholls, 2008:1). Social innovation embedded in social entrepreneurs unlocks value by creating a platform for sustainable solutions through a synergistic combination of capabilities, products, processes and technology (Nga & Shamuganathan, 2010:265).

SE also includes the Schumpeterian approach to entrepreneurship but function as "change agents for society, seizing opportunities others miss and improving systems, inventing new approaches and creating sustainable solutions to change society for the better" (Skoll Foundation, 2005). Social enterprises have the potential to rise above negative market forces as their operations are immune to the homogenous factors that affect many other industries and organisational forms (Sud *et al.,* 2009:205). Generally, social enterprises target unmet social needs to create value. In so doing, social entrepreneurs aim to achieve sustainable solutions by empowering people both inside and outside the organisation and by ensuring the effectiveness of the overall value system of activities and partners (Santos, 2012:346). Accordingly, social

entrepreneurs create revenue by moving resources to areas where they can be used more efficiently (Mair & Marti, 2006:36). They become role players by filling the gap left by other institutions (Ernst, 2014:29).

3.3 ORIGIN OF SOCIAL ENTREPRENEURSHIP

SE has a significant history, both in practice and academic research. The following paragraphs briefly review its history.

3.3.1 Social entrepreneurship in practice

The literature describes the settings and periods within which the concept of SE evolved (El Ebrashi, 2013:188). The term SE first appeared in the writings of William Parker in 1954. While analysing three distinct types of individual enterprise ambition in Germany, Parker (1954:400) pronounced SE as having the potential to manifest in Germany depending on the individual's own drivenness and given the fluidity of the social structure in the country. Parker (1954:400) acknowledges SE as an alternative career option for working class members. They could achieve relatively well-paid entrepreneurial leadership positions. Several scholars refer to the work of Joseph Banks in 1972. In his seminal work titled *The sociology of social movements*, Banks describes SE to mean the managerial skills specifically employed to solve different social dilemmas (El Ebrashi, 2013:188).

More traces of SE citations appear in the publication of the Demos think tank report titled *The rise of the social entrepreneur* in the United Kingdom and in *The new social entrepreneur* in the United States (Tan *et al.,* 2005:353). Other literature highlights various examples of SE. For instance, Waddock and Post (1991:393) highlight the emergence of SE as a public policy phenomenon where social entrepreneurs act as catalysts for change in the public policy process. Other examples look at the founding of various organisations to address the needs of society, such as non-profit organisations, traditional for-profit initiatives and mixed initiatives (Dees, 1998:1; Anderson, Dana & Dana, 2006:45; Peredo & McLean, 2006:56). A not-for-profit (NPFs) organisation is a sector organisation that has the primary mission of providing services aimed at improving the quality of life of the target market (Weerawardena & Sullivan Mort, 2001:55). NPFs have the responsibility of responding to their primary stakeholders, namely the government, clients, members, sponsors, donors, employees and special interest groups. Due

to the immense pressure to deliver superior products and services to these stakeholders and the need to remain competitive among their counterparts, NPFs pursue innovative strategies to maintain financial sustainability through earned income (Dees, 1998:56). This strategy is a sure way to secure reliable funding, unlike exposure to the vulnerability of relying on donor funding.

A few successful entrepreneurs who turned their attention to social causes initially fuelled the practice of SE. For example, Bill Drayton founded Ashoka in 1980. Ashoka is a non-profit organisation founded on the premise of supporting social entrepreneurs worldwide by providing them with grants for innovators. Their pattern-breaking solutions are used to address social problems in the United States (Hossain, Saleh & Drennan, 2017:351). The foundation of Grameen Bank in Bangladesh followed the same route. Their premise is to provide small loans with favourable terms to people in Bangladesh who would usually not be able to access funding through the formal banking systems (Schmidt Baumgarth, Wiedmann & Lückenbach, 2015:134).

Such ideas of using market-based methods to solve social problems have caught the attention of the media, public and academics (Miller, Wesley & Williams, 2012:616). Businesses, governments and educational entities worldwide are interested in finding alternative ways of solving society's social dilemmas (Hossain *et al.*, 2017:348). There is particular emphasis on encouraging SE in various sectors of the South African economy due to the negative impact of the global economic crisis of 2008, the intractable problems of persistent poverty and environmental change (Doherty, Haugh & Lyon, 2014:417). Furthermore, a growing number of political and business leaders have openly endorsed social enterprises in the world (Defourny & Nyssens, 2008:206). Similar heroic efforts are evident from the increased number of foundations that focus on addressing social imbalances ailing the needy in various societies (Short *et al*., 2009:164; Peredo & McLean, 2006:61). Figure 3.1 gives a clearer chronological order of how the practice of SE has evolved over time.

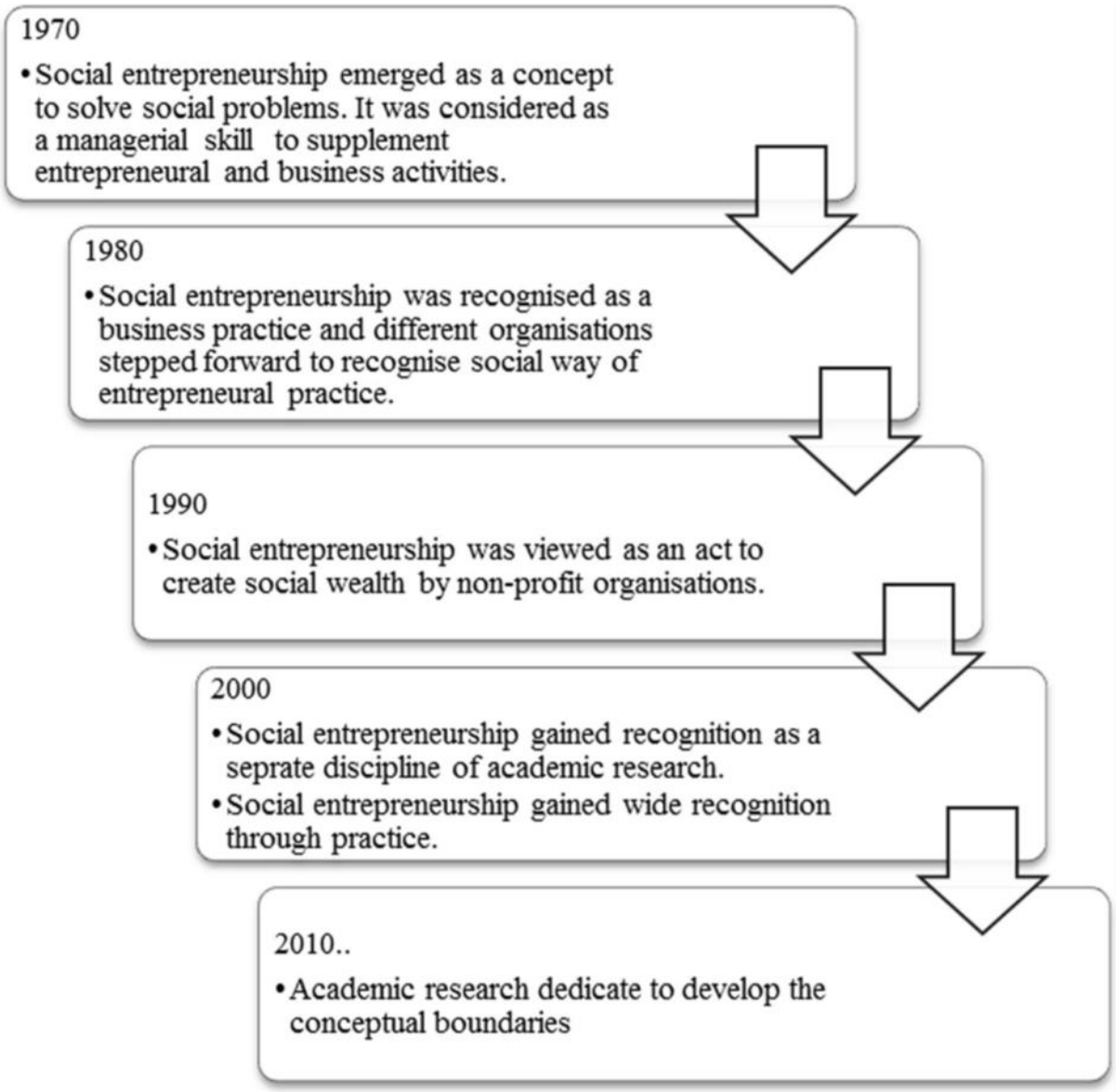

Figure 3.1: History of social entrepreneurship

Source: Hossain, Saleh & Drennan (2017:351)

3.3.2 Social entrepreneurship as a scientific field of enquiry

Compared to academic research in the field of general entrepreneurship, which dates back to the mid-18th century (Van Praag, 1999:313), SE is a relatively young scientific field of enquiry. Although the literature does not specify exactly when the term was first used, Sassmannshausen and Volkmann (2018:254) note that William Parker (1954:400) referred to SE as an activity that served as an outlet for enterprise and ambition among individual Germans in the mining industry. Young made an effort to introduce the concept of SE to the scientific community in 1983. In the book titled *If not for profit, for what?* Young describes SE as a new way of linking

entrepreneurial behaviour to the non-profit or governmental environment (O'Neill, 2013:37). Based on Schumpeter's (1934) analysis of entrepreneurship, Young deliberately transferred elements of the for-profit sector and proposed an application of the Schumpeterian concept of implementing new combinations to the production of government, or non-profit sector services (Young, 1983:23). While he did receive praise for his pioneering work with "presaging the SE movement now at high tide" (Shockley, 2013:42), Young acknowledged that SE research would only succeed if it found a sound combination of strong theoretical foundations and real-life examples (O'Neill, 2013:37). However, what Young (1983) did not do was offer a definition of this new line of entrepreneurship research. It could hardly be expected at this early stage.

Another milestone in SE research was the work of Waddock and Post (1991:393), who thought of social entrepreneurs as central drivers of "catalytic change". They (Waddock & Post, 1991:393) use two successful examples of initiatives of private sector citizens that had a fundamental impact on public and social attitudes to highlight the role social entrepreneurs play in addressing social problems such as drug abuse in the public domain. Waddock and Post (1991:395) argue that although the actions of *Partnership for a drug-free America* and *Hands across America* did not directly solve public problems, their work set the stage and context for policy making and implementation activities. They recommend that policy makers implement situational factors that could lead to social entrepreneurial project success, such as assessing problem complexity, analysing the credibility of the individual or organisation who wants to engage others in the fulfilment of their vision and the commitment to a collective purpose.

After the isolated early research output before 1990, it took some time for more research on SE to enter mainstream literature. As Boschee (1995:5) can attest, little progress was made on SE research from the time Young's book that was published in 1983. However, at present SE is constantly attracting more the attention (Bornstein, 1998:34), with more research emerging in specific SE journals, conference proceedings and leading journals are not particularly dedicated to SE (Sassmannshausen & Volkmann, 2018:257). Despite the proliferation of research output in the subject area, SE is still regarded as a new concept and it is hampered by definition ambiguities (Hoogendoorn, Pennings & Thurik 2010:1; Short *et al.*, 2009:161). As Johnson (2000:27) remarks:

> *[…] defining what social entrepreneurship is, and what its conceptual boundaries are, is not an easy task […] in part because the concept is inherently complex, and in part because the literature in the area is so new that little consensus has emerged on the topic. (p. 27)*

Although some scholars have attempted a broader conceptualisation of SE or the related constructs (Weerawardena & Mort, 2006:21; Adler & Kwon, 2002:17), the problem of defining SE remains. Cho (2006:34) identifies two central problems when it comes to defining SE. Firstly, SE definitions are tautological, suggesting that the majority of definitions explicitly cover what entrepreneurship is without being equally clear about the social part. Cho calls this a "surprising lapse given that the social dimension of SE is, in large part, responsible for the concept's inherent complexity" (Cho, 2006:35). Secondly, the majority of SE definitions are monological, meaning that some definitions narrate an explicit focus on the social vision of the social entrepreneurs and its execution. This limited perspective "may neglect competing visions and supplant important political processes of dialogue, negotiation, and social integration" (Cho, 2006:36).

SE has become a highly relevant topic in entrepreneurship research (Sassmannshausen & Volkmann, 2018:251). Two frequently cited and influential articles in the field (Austin *et al.*, 2006:1; Mair & Marti, 2006:36) have become a milestone in SE research. The focus of the two papers is slightly different, but they both identify key definitional elements. While comparing SE with commercial entrepreneurship, Austin *et al.* (2006:4) use the people-context-deal-opportunity (PCDO) framework to summarise the most important aspects of SE. They (Austin *et al.*, 2006:5) further remark that there is a significant overlap of social and commercial entrepreneurship despite the profit-only focus in commercially minded entrepreneurship. The debate on whether SE is an element of entrepreneurship literature or an independent field of enquiry has become more prominent. It receives attention in the discussion of the double bottom line by Tracey and Phillips (2007:264) and in the entrepreneurial typology of Lepoutre, Justo, Terjesen and Bosma (2013:1). In the same vein, Mair and Marti (2006:14) conclude that, "social entrepreneurship deserves to be considered an independent field of research but within the broader context of entrepreneurship research". This highlights the opportunities for entrepreneurship and SE to benefit from each other. This is not a new perspective (Bornstein, 1998:34), but it has gained much more attention. If anything, the focus on catalysing social change included in the SE definition of Mair and Marti (2006:14) exemplifies how beneficial

it has been to adapt ideas embedded in early entrepreneurship (Schumpeter, 1934) or early SE literature (Waddock & Post, 1991:393).

Another central commonality of the articles is their goal of arousing "academic curiosity" (Mair & Marti, 2006:39) and outlining perspectives for future research in the field of SE. Many researchers seized the opportunity and the body of SE literature grew exponentially in the years following the articles (Sassmannshausen & Volkmann, 2018:251; Kraus *et al.*, 2014:275; Cukier *et al.*, 2011:99). Yet, one call of Mair and Marti (2006:16) went largely unheard. Despite emphasising the equal importance of quantitative and qualitative research, the complexity of SE seems to have repelled many researchers from making empirical hypotheses-testing efforts in the field. The first literature review renewing this call was published by Short *et al.* (2009:161), who consider SE research as being in an "embryonic stage" due to the almost complete absence of hypotheses-testing formal research. In a later study, Lee *et al.* (2014:241) conducted a literature review and reached almost exactly the same conclusion. They found that conceptual articles focusing on definitional problems and case studies (Lee *et al.*, 2014:241) dominated the body of SE literature. Thus, despite a very high number of papers and several well-structured systematisations (Wry & York, 2017:437; Dacin *et al.*, 2010:37; Bacq & Janssen, 2011:373), there is still a substantial shortage of quantitative research on SE. In a recent article that summarises the current state of SE research, Sassmannshausen and Volkmann (2018:251) came to a similar conclusion regarding the lack of empirical evidence. Their findings concur with one of the reasons Mair and Marti (2006:13) provide when they point out the complexity of SE, especially with respect to the social aspect.

This study reacts to the prediction that quantitative methodologies have the potential to be "highly relevant for the study of certain aspects of SE" (Mair & Marti, 2006:13) by empirically investigating antecedents to SE intentions among Generation Y university students in South Africa.

3.4 SOCIAL ENTREPRENEURSHIP IN SOUTH AFRICA

The debate for or against SE is intensifying in South Africa due to the financial pressures non-profit organisations experience (Brenche, 2015:1). Despite the problems with understand it precise meaning, the work that is termed SE in South Africa was started after 1994 by a number of courageous individuals who felt the need to do good for the disadvantaged and

disenfranchised communities while substituting and relegating their own personal agendas in the pursuit of social goals (Visser, 2011:234). Similar to the challenges other countries face, the need for SE in South Africa remains crucial. It is rather sad to note that two decades after South Africa gained independence in 1994, progress on transforming the South African society is still slow (Holt & Littlewood, 2018:525). Urban (2008:347) observes that in South Africa, "social entrepreneurship has unequivocal application where traditional government initiatives are unable to meet the entire social deficit, where efforts to reduce dependency on social welfare/grants are currently being instituted, and where the survival of many non-governmental organisations (NGOs) is at stake." These challenges are further exacerbated by high levels of youth unemployment, inequality and poverty (Herrington & Kew, 2016:34). For instance, Statistics South Africa announced in 2016 that 5.2 million people or 26.7 percent of the population in South Africa are unemployed and that the rate of total entrepreneurial activity is very low with no promise of an upward trend.

Other research shows that the government, donors, and the public are increasingly recognising the significant role SE plays in transforming society (Karanda & Toledano, 2012:204; Visser, 2011:233; Urban 2008:346). A research project conducted by The 2010 GEM showed that South Africa has a performance rate of 1.8 percent on social entrepreneurial activity, which is average relative to the participating 49 countries, whose range lies between 0.2 percent and 4.1 percent (Herrington *et al*., 2010:99). Although further findings revealed that the number of social enterprises in South Africa is significantly lower compared to other countries in the same cohort, it is encouraging to note that social enterprises with social or environmental goals and innovative strategies to earn income from their activities have been established to address the social challenges South Africa faces (Visser, 2011:237). In an earlier study, Herrington *et al.* (2009:103) reported that the majority of those engaged in social entrepreneurial activity were individuals that have completed their high school education, with some even having completed tertiary education. These results indicate that education has a positive correlation with starting an entrepreneurial business, in this case a social enterprise. Bearing the above in mind, the discussion now turns to investigating the antecedents to SE intentions among Generation Y university students in South Africa.

3.5 SOCIAL ENTREPRENEURSHIP IN GERMANY

Discussions on the concepts of SE and social entrepreneurs have intensified in many parts of the world, such as the North America, Europe, Asia and Latin America. Grohs, Schneiders and Heinze (2017:2573) acknowledge that the intensity of these discussions are encouraged by the successful social ventures of people like Muhammed Yunus of Grameen Bank in Bangladesh. However, Bosma, Schott and Terjesen (2016:10) are of the notion that common environmental and social problems are triggers that give rise to the need for social entrepreneurship in these places. Considering the case for Europe, the SE concept made its first appearance in the 1990's when the Italian Parliament adopted a law that created a special legal form for Social c-operations (Defourny & Nyssens, 2010:33). Before then, third sector organisations played the role in providing social services to its people while being inspired by the Christian charitable traditions. However, rising social challenges such as persistent structural unemployment, increasing government deficit and the need for more integrative policies led to the need to involve third sector organisations for assistance Defourny & Nyssens, 2010:35). Nonetheless, this transition into the practice of SE especially in Germany has not been as smooth as it sounds.

3.5.1 The practice of social entrepreneurship in Germany

Germany is characterised as relatively closed market, predominantly corporatist and a classic example of a conservative welfare state (Grohs, Schnerders & Heinze, 2015:163; Mauksch, 2012:157). Its social sector services are dominated by the deep rooted function of corporate governance (Grohs *et al.*, 2017:2575). Only the local government and non-profit organisations provided the social services and public bodies were refrained from providing the same act. Generally, the German welfare associations that were developed in the 1960s and 70s became the strong traditions and most important providers of social and health services to its people. However, over time, this corporatist mode of governance met with its own challenges. Severe fiscal constraints and constant critics of its effectiveness or legitimacy of the social welfare structure led to the rethink for new social service providers (Grohs *et al.*, 2017:2577). Similarly, Kerling (2013:94) contends to the notion that high involvement of third sector organisation creates a favourable environment of SE and its development in times of fiscal austerity. Against this backdrop, social entrepreneurs in Germany developed not only in relation to

established welfare organisations, but also due to other social-economic transformations (Zimmer & Bräuer, 2014:7).

3.5.2 Research on social entrepreneurship in Germany

Although interest in SE is generally intensifying in Europe, (Mauksch, 2012:157) observes marginal improvements of SE in Germany. Researchers note that the concept of SE came at the time when the German social-economic models was deep rooted on a social partnership agreement and the concept of social development was understood as a specific articulation between the market and the state (Defourny & Nyssens, 2008:207). Similarly, Grohs *et al.* (2015:163) contend that the conservative welfare state conditions and the discourses surrounding the role of marketisation and the importance of allowing new players in the field of social entrepreneurship cloud advancements in social entrepreneurship research. To this end, many agree to the notion that research in the field is in a state of infancy (Hoogendoorn *et al.*, 2010:2). Much of the criticism centres on the idea that the SE narrative is challenged by culturally embedded local perspectives perspective of its aims and objectives (Nicholls, 2008:23). As a results, consensus in the general meaning of social entrepreneurship among researchers in Germany is still at large (Young & Lecy, 2014:1307; Hoogendoorn *et al.*, 2010:1). Nonetheless, in a study that qualitatively analysed the prevalence of social entrepreneurs and social enterprises among 21 interviewees in the social sector in Germany Mauksh (2012:158) found that participants in the survey legitimise SE as a novel, non-bureaucratic and rational approach to social problem solving; besides the simultaneous challenges faced by the narratives emanating from a culturally embedded redefinition of its aims and objectives.

3.6 DEFINING SOCIAL ENTREPRENEURSHIP

SE has grown into a fully-fledged scientific field of research (Kraus *et al*., 2014:275; O'Neill, 2013:37), but at the same time is regarded as a new research field with a continued lag on action. One of the things holding back the maturation of the research field is the lack of clarity on definitions (Bacq & Janssen, 2011:373). The definition of SE is still developing as social entrepreneurs and researchers alike continue to work on strategies for addressing urgent social threats (Light, 2010:2007). Despite yielding many journal articles concerned with defining the phenomenon (Hoogendoorn *et al.*, 2010:1), SE has meant different things to different people

over the years (Dees, 1998:2). One group of researchers regard SE as the behaviours of visionary entrepreneurs and/or not-for-profit organisations who have new ideas to address major problems while paying attention to market forces and pursuing the mission of developing products and services that achieve social ends (Bacq & Janssen, 2011:388; Tracey & Phillips, 2007:264; Bornstein, 2007:2; Boschee, 1998:1). Others understand it as the goal of responding to social needs that result from the inability of the state or private systems to respond to the unmet needs of the society (Elkington & Hartigan, 2008:2; Dorado, 2006:327; Mair & Marti, 2006:37). A different group identifies SE with the process of identifying and exploiting opportunities that provide services and goods that the market is unwilling or unable to provide (Martin & Osberg, 2007:34; Smallbone Evans, Ekanem & Butters, 2001:5). Yet to some, SE means enterprises that leverage scarce resources to deliver social value to the underprivileged people in society (Abu-Saifan, 2012:25; Sharir & Lerner, 2006:7; Thompson & Doherty, 2006:671). Table 3.1 offers a summary of the evolution of SE definitions as found in extant literature.

Table 3.1: Social entrepreneurship definitions

Author	Definition
Horsnell & Pepin (2002:1)	Social entrepreneurship entails starting and growing business ventures that simultaneously contribute to your organizational capacity, mission impact and financial bottom line.
Mair & Marti (2004:7)	Enterprises that may include 'for-profit, non-profit or hybrid' activities
Emerson & Twersky (1996:8)	New social entrepreneur – A non-profit manager with a background in social work and who seeks after a dream of financial strengthening through the formation of social reason organizations proposed to give extended chance to those on the edges of our country's monetary standard.
De Leeuw (1999:261)	Social entrepreneurs are "rare individuals with the ability to analyse, to envision, to communicate, to empathize, to enthuse, to advocate, to mediate, to enable and to empower a wide range of disparate individuals and organizations."
Fowler (2000:649)	"SE is the creation of viable (socio-) economic structures, relations, institutions, organisations and practices that yield und sustain social benefits."
Boettke & Rathbone (2002:7)	Opportunities for social entrepreneurs come from "gaps left by both the market sector and the state sector".
MacMillan (2003:1)	SE is a process of wealth creation that benefits both the entrepreneur and the marginalised society.
Lasprogata & Cotton (2003:69)	Social entrepreneurs '[…] apply entrepreneurial strategies to sustain themselves financially while having a greater impact on their social mission (i.e. "the double bottom line").'
Roberts & Woods (2005:49)	SE is an action-oriented process that combines social impacts with a commercial business model through the "construction, evaluation and pursuit of opportunities for transformative social change carried out by visionary, passionately dedicated individuals".
Mair & Marti (2006)	"A process of creating value by combining resources in new ways…intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs."
Wang (2007:86)	A social enterprise can be "defined as an organization that generates profit, but unlike a neoclassical firm, does not maximize profit, and unlike a non-profit, is free to redistribute profits to investors".
Nicholls (2008:23)	SE is a set of innovative and effective activities that strategically focus on resolving social market failures and creating new opportunities to systematically add social value by utilizing a scope of assets and authoritative organizations to boost social effect and achieve change
Zahra *et al*. (2009)	"Recognition, formation, evaluation, and exploitation of opportunities to create new businesses, models and solutions with a focus on achieving blended value."
Dacin, Dacin & Matear (2010)	"SE comprises four key factors: 1) the characteristics of individual social entrepreneurs, 2) their sphere of operation, 3) the processes and resources used by social entrepreneurs, 4) the mission of the social entrepreneur."

Author	Definition
Estrin *et al.* (2013)	The activities of social business visionaries and the ventures they create enhance cooperative norms within a nation, providing positive signals about caring for others through attempting to support societal objectives and group needs.
Wry & York (2017:445)	"Social entrepreneurs focus on creating social and commercial value [and] perceive [...] tension between social and financial aims." Social entrepreneurs' "integration efforts focus on social and financial aims". Social entrepreneurs have the "ability to spot more—and more nuanced—points of intersection between social and financial aims".

Source: Own Compilation

Judging by the diversity of views depicted in Table 3.1, SE is replete with conceptual ambiguities with no proper sense of direction (Hossain *et al.,* 2017:352). A number of reasons may contribute to this diversity of views, for example the inherent complexity of defining the social element in SE (Cho, 2006:34) or the respective use of the terms "social enterprise" and "social entrepreneur" (Light, 2010:2006). Different researchers from different geographical regions offer different terms (Bacq & Jassen, 2011:374). SE research predominantly originates in the United States and the European traditions (Bacq & Janssen, 2011: 373; Hackett, 2010:212; Hoogendoorn *et al.,* 2010:5). The United States tradition understands SE as a form of business practice that falls on a continuum between profit-making organisations engaged in philanthropies to fully non-profit organisations, with organisation that serve both profit and social objectives (hybrid) mediating the continuum. The European traditions categorise social enterprises as businesses positioned within the social economy with the primary focus being to create social benefits (Kerlin, 2006:249). Another reason for the lack of clarity is the interdisciplinary nature of SE research (Kraus *et al.,* 2014:289). SE takes concepts from other fields, such as commercial entrepreneurship and business management. It becomes difficult to determine the definitive boundaries of the field (Wry & York, 2017:437).

Despite several attempts to identify the central definitional aspects of social enterprises and social entrepreneurs, a mutually agreed upon definition is still elusive (Wry & York, 2017:437). There is a frequently applied technique to structure complex and ambiguous information in order to identify the essence of the underlying construct, called qualitative content analysis (Mayring, 2014:54; Hsieh & Shannon, 2005:1277). According to Mayring (2014:34), qualitative content analysis is research technique that aims to retain the strengths of a statistical analysis and to develop a systematic qualitative text-oriented analysis. In other words, it is a

method of data analysis that involves deducing already existing language material by deduced what can be interpreted from the material with the chief aim of determining points in the analysis at which quantitative measures can sensibly be brought in. The procedure of content analysis follows a series of steps that can be adapted to suit a specific problem (Mayring, 2014:34). It is not a standardised instrument that always remains the same. It is flexible so that it could be adapted to suit the particular material in question and constructed for the issue at hand (Mayring, 2014:39). Figure 3.2 provides a model of a general content analysis process. Following Worthington and Whittaker's (2006:806) recommendations, a content analysis approach is used to derive definitions of the terms SE and "social entrepreneur". This study uses the accumulated knowledge available in the existing SE literature to formulate a comprehensive definition of the terms "social enterprise" and "social entrepreneur". Furthermore, these definitions are then used to determine the foundations to develop a self-report questionnaire to measure social entrepreneurial intentions among Generation Y university students in South Africa.

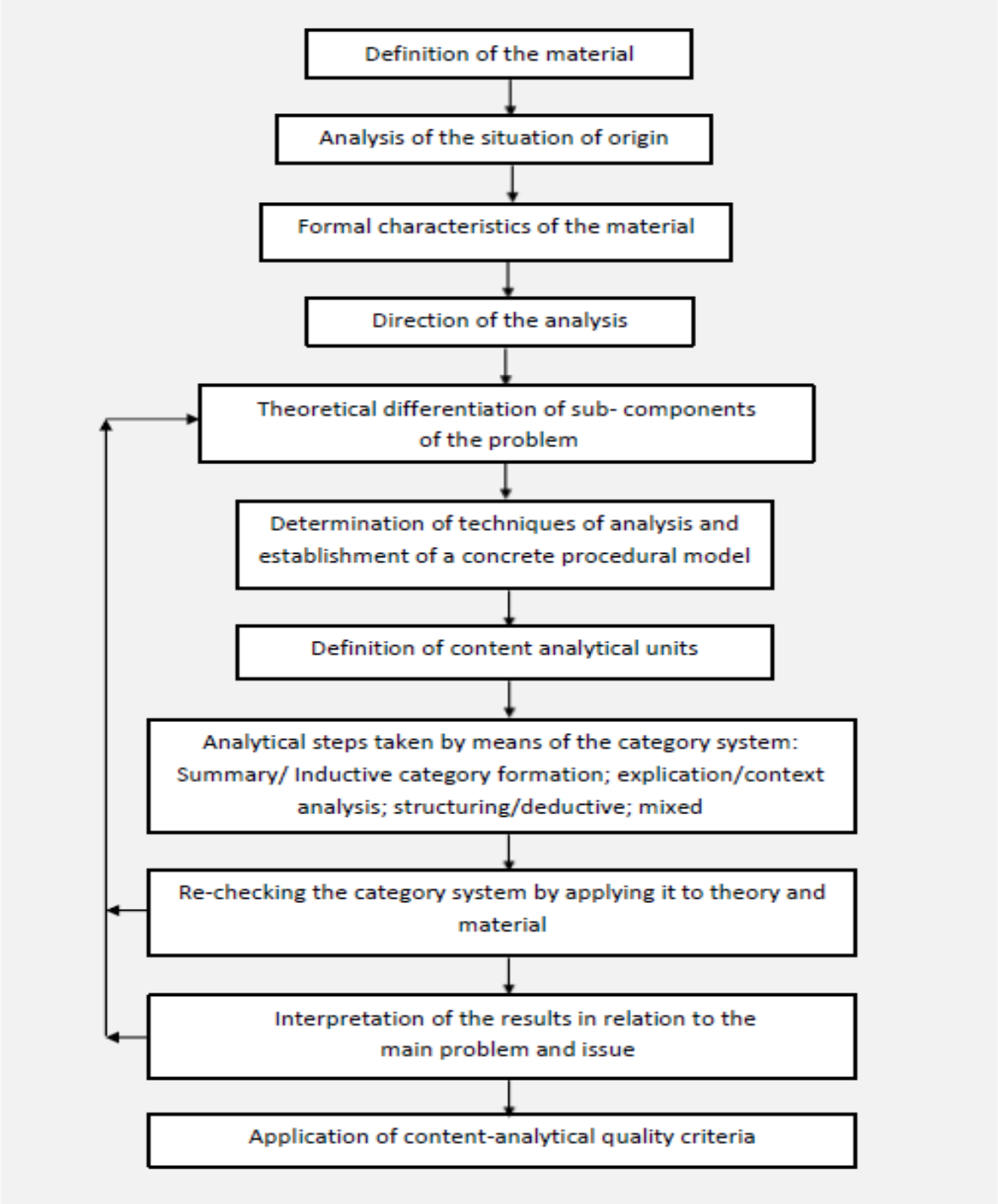

Figure 3.2: The general content-analytical process model

Source: Mayring (2014:54)

As a first step, the researcher determined the inclusion criteria for the content analysis. Only original definitions (i.e. excluding secondary sources) published in peer-reviewed journals and books dealing with the terms "social enterprise," "social entrepreneur" and "social venture"

were included. To this end, the research applied two different strategies to identify the relevant definitions. The researcher conducted a literature review of existing SE articles listing several definitions (Wry & York, 2017:437; Lee *et al.*, 2014:241; Santos, 2012:335; Bacq & Janssen, 2011:373; Cukier *et al.*, 2011:99; Dacin *et al.*, 2010:37; Hervieux *et al.*, 2010:37; Short *et al.*, 2009:161; Mair & Marti, 2006:1; Austin *et al.*, 2006:1; Mair & Noboa, 2006:121; Peredo & McLean, 2006:56;). The second strategy was a free-hand search in academic databases on the fields of business (Business Source Complete), psychology (PsychInfo, PsychArticles) and general science (Academic Search Complete) in October and November 2017 to check for authors and articles that offer new definitions. However, it is a central element of content-analytical procedures that text be not interpreted as a whole, but divided into categories (Mayring, 2014:51). The next step involved a coding procedure to analyse key factors that define SE.

In a category procedure, an inductive process is followed to summarise content that is directly coming from the material in question, in this case definitions of SE. Using every sentence of social entrepreneur and social enterprise definition as unit of analysis, this study used the PCDO framework by Sahlman (1996:139) to inductively derive a category structure. The PCDO framework is considered a well-acknowledged framework to structure entrepreneurial activities (Austin *et al*., 2006:4). According to Sahlman (1996:139), "people" includes all individuals who contribute actively to the enterprise, for example by investing resources. "Context" entails all elements that cannot be directly influenced by the entrepreneur, but that have an impact on his or her entrepreneurial success, for instance the macroeconomy or social circumstances. "Deal" represents all transactions in the enterprise itself or with external recipients. Finally, "opportunity" can be defined as all actions related to the investment of scarce resources in the hope of a return in the future.

Upon coding the material, the next step in content analysis requires re-checking the category system by applying it to theory and material (Mayring, 2014:54). Definitions in the "deal" category offered limited clarity for the coding process. Therefore, in an effort to negotiate the lack of clarity of SE definitions, the deal-category was split into two categories, called "social deal" referring to the social actions in SE and "entrepreneurial deal", referring to entrepreneurial actions in SE. This, to a certain extent, also addresses the criticisms of tautological and monological definitions raised by Cho (2006:34). The coders agreed in 96

percent of the cases. Differences in the coding were addressed in a post-coding discussion and the coders came to a mutually accepted conclusion.

Finally, the researcher paraphrased and isolated the most important elements of each definition into the categories "social deal", "entrepreneurial deal", "context", "people" and "opportunity" basing on the coded definitions. This led to a total of 41 elements in the social deal category, 24 elements in the entrepreneurial deal category, 21 elements in the context category, six elements in the people category, and 23 elements in the context category. The numbers for these elements were further reduced by merging them into more general units, for example 'ambiguity tolerance' or 'creating social value'. Consequently, 14 units emerged that were assigned to either the entity of a social enterprise or the social entrepreneur as a person. These features are displayed in Table 3.2.

Table 3.2: Central features of a social enterprise and social entrepreneurs basing on our content analysis

Social enterprise	**Social entrepreneur**
- Has a business model	- Has an entrepreneurial mindset
- Generates revenue	- Adheres to a high ethics and a social mission
- Addresses socioeconomic needs unmet by national systems or private sector	- Has ambiguity tolerance
- Creates social value	- Is innovative
- Targets financial sustainability	- Has the target of social empowerment of people
- Innovatively combines and exploits resources	- Is prepared to take risks
- Contributes to a sustainable development of a community	- Has a vision
Note: Basing on previously published $N = 90$ definitions of the terms "social enterprise", "social entrepreneur" and "social venture".	

Source: Researcher's own compilation

Based on these results, this study derived the following definitions for the terms "social enterprise" and social "entrepreneur":

A social enterprise is an enterprise with a business model that addresses unmet socioeconomic needs in communities in an innovative and financially sustainable way by creating social value and generating revenue for the enterprise and its stakeholders.

A social entrepreneur is an innovative person with an entrepreneurial mindset and a social mission that is capable of communicating his or her vision and willing to take risks and negotiate tensions to socially empower disadvantaged people.

Defining SE is biased to the extent to which the literature focuses on communicating the entrepreneurial part, with less emphasis on the social aspect of the phenomenon (Cho, 2006:34). Elements such as dealing with socioeconomic needs in communities and the empowerment of socially disadvantaged people helps researchers to get a better understanding of the social aspect of SE without being exclusive. The entrepreneurial and financial elements, for example having a business model and the generation of revenue, are in line with the assumption of Porter and Kramer (2011:62), who state that creating shared value while meeting one's financial and other social targets was the best way of judging the success of a social entrepreneur. However, the definitions do not suggest any quantitative distribution of the entrepreneurial, financial, and social elements of social enterprises (Lepoutre *et al.,* 2013:14) but rather focus on the entrepreneurial mindset that is considered central to any kind of entrepreneurial activity (Haynie *et al.,* 2010:217). When mapping the definition of real nascent social entrepreneurs based on the study by Germak and Robinson (2014:5), several elements of their motivational framework can be found in the definitions derived in this study, for example, the goal of helping society and an achievement orientation. Even though the definitions do not contain all motivational factors proposed in this study (e.g. the non-monetary focus, which was also surprising for the authors), the proposed definitions can be considered in line with the majority of the previous definitional work in SE. It offers a good basis for the development and validation of a scale measuring the intention to pursue a career as a social entrepreneur. Following these lines of arguments, this study proposes that a measure of social entrepreneurial intentions could be derived from the central features of the concepts of social entrepreneur and social enterprise already existing in the extant literature.

3.7 SOCIAL ENTREPRENEURIAL INTENTIONS

Literature from the field of psychology highlights intentions as the predictor of a planned behaviour such as SE (Radipere & Ladzani, 2014:190; Krueger *et al.,* 2000:411). Besides the flawed focus on psychological characteristics of business founders (Gartner, 1989:27; Low & MacMillan, 1988:139), current research focuses on not only the general personal characteristics, but also domain-specific attitudes, personal background and context

(Davidsson, 1995:2). One particular branch of inquiry focuses on the pre-decision stage of entrepreneurial career preference termed intentions (Shapero & Sokol, 1992:72; Bird, 1988:442).

Bird (1988:442) defines intentions as "a state of mind directing a person's attention […] toward a specific object […] or a path in order to achieve something". Social entrepreneurial intentions refer to the motivation to identify opportunities to create social impact. Founding a social enterprise is usually considered the result of translating SE intentions into action (Hockerts & Wüstenhagen, 2010:177). To a certain extent, the resulting action of forming a social enterprise mitigates the previously mentioned SE definition issues, even though the perception of what a social enterprise is remains vague (Hockerts, 2017:105). Additionally, the empirical investigation of SE intentions has been gaining momentum and now has a more solid theoretical basis (Prieto, 2011:77; Nga & Shamuganathan, 2010:259). In a recent meta-analysis study, Kruse *et al*. (2018:1) highlight two main theoretical approaches used to determine antecedents to SE intentions, namely the TPB (Ajzen, 1991:179) and the model of social entrepreneurial intention prediction (Mair & Naboa, 2006:123). Ajzen's model is thoroughly discussed in Chapter 2 (Section 2.9.2) Mair and Naboa's (2003:8) working paper series was the first to develop an intentions model for SE. The study aimed to clarify the key elements that define the process of SE. Mair and Naboa (2006:129) are of the opinion that several aspects of social entrepreneurial context require adapting measures from traditional entrepreneurship. In so doing, Mair and Naboa (2006:121) applied Ajzen's models of entrepreneurial intentions and argue that empathy, moral judgement, self-efficacy and perceived social support could be proxies for attitudes towards behaviour, social norms, internal behavioural control and external behavioural control respectively. Although Mair and Naboa recognise the central effect of situational and personal factors on the formation of entrepreneurial intentions as highlighted in the literature, their research focused on the individual/personal factors. They developed a model that distinguishes individual level factors from organisational behaviour with a combination of dynamic and malleable personal variables. Figure: 3.3 illustrates the resulting model.

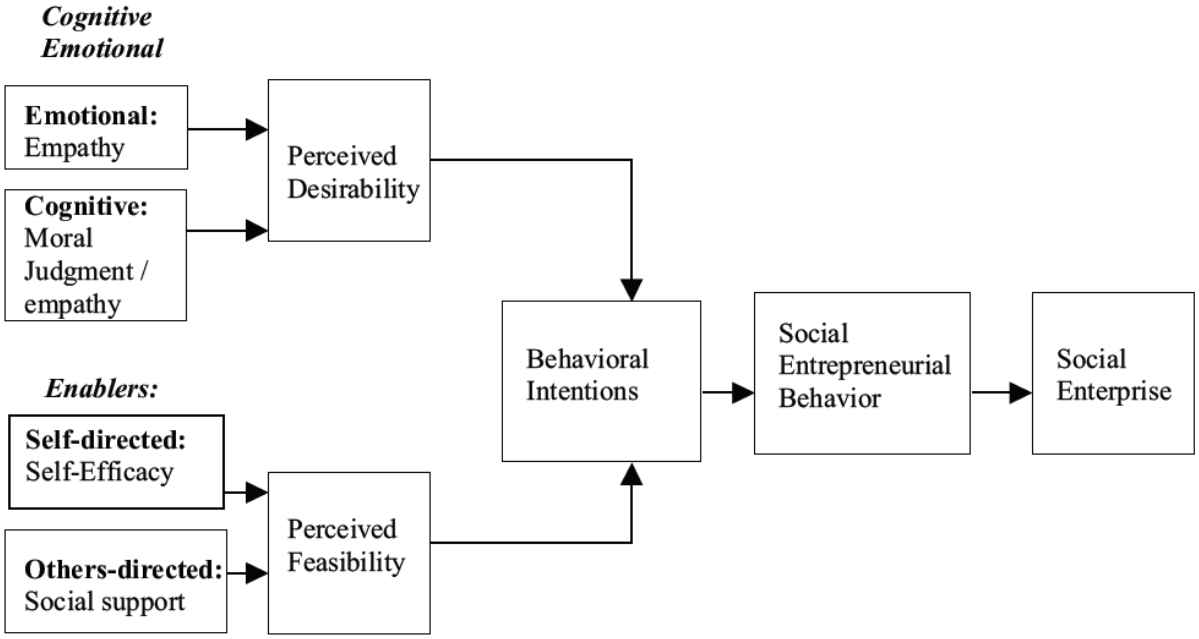

Figure 3.3: Social entrepreneurship intentions model

Source: Mair & Naboa (2006:121)

In Figure 3.3 Mair and Naboa (2006:121) suggest that perceived desirability or the level of motivation to establish a social business; and perceived feasibility, or the capability or possibility of actually starting a social business shape social entrepreneurial intentions. In the model, Mair and Naboa (2006:121) explain that a social venture is perceived desirable if the individual has empathy and moral judgement to guide his intentions. Similarly, a social venture may be feasible when the individual is self-directed through self-efficacy or directed by others through social support. A combination of these factors leads to behavioural intentions such as social entrepreneurial intentions, and subsequently to establishing a social business. Mair and Naboa (2006:122) contend that the model is a reflection of Ajzen's TPB. The factors are mediated by Shapero and Sokol's work on entrepreneurial event formation.

3.7.1 Motivation for applying research on entrepreneurship intentions to social entrepreneurship

There is a body of research where entrepreneurship researchers tried to answer the question why some people decide on entrepreneurship as a career choice (Teixeira & Forte, 2009:1; Shane & Venkataraman, 2000:217). An examination of this research reveals two distinct strands of research with one emerging from social psychology and the other on contextual factors more specific to entrepreneurships (Liñán & Fayolle, 2013:907). Researchers have

described and analysed various unique characteristics or traits in relation to business start-up (Espíritu-Olmos & Sastre-Castillo, 2015:159; Fayolle & Liñán, 2014:663; Altinay, Madanoglu, Daniele & Lashley, 2012:489). Others have gone to the extent of understanding the genetics related to entrepreneurs by answering the question whether entrepreneurs are born or made (Zhang, Zyphur, Narayanan *et al.,* 2009:93; Nicolaou, Shane, Cherkas *et al.,* 2008:167). Interestingly, these research results show that genetics play a part in the likelihood of engaging in entrepreneurship (Shane & Nicolaou, 2013:474). Due to limitations of previous findings in predicting entrepreneurial activity, new approaches for understanding entrepreneurial behaviour emerged (Fayolle & Liñán, 2014:663). According to Krueger *et al.* (2000:413), the model for intentionality has been argued to be the best predictor of entrepreneurial behaviour.

As previously discussed, the relationship between entrepreneurship and intention is summarised as follows: Firstly, intentions as defined by Ajzen (1991:181) are the motivational factors that influence behaviour and are a reliable indicator of reflecting individual's willingness to try to perform a particular behaviour. Secondly, entrepreneurship is understood as a way of thinking that capitalises on opportunities over threats (Shane & Venkataraman, 2000:217). Krueger *et al.* (2000:411) understand opportunity identification as a conscious and voluntary process that can be considered as planned behaviour. Furthermore, Bird (1988:142) is of the view that sustained intentions are needed for entrepreneurial ideas to become manifest. Therefore, knowing that all planned behaviour is intentional (Krueger *et al.,* 2000:412), entrepreneurship is an intentionally planned behaviour.

Chapter 2 Section 2.9n dealt with the various entrepreneurial intentions models that researchers have discussed, tested and analysed in the past. Knowledge of models of behavioural intentions has offered sound theory and empirical robustness about intentions and antecedents that predict human behaviour towards entrepreneurship (Krueger, Schulte & Stamp, 2008:1). However, there are consistent calls for more research and a much better understanding of the link between intentions and subsequent action; particularly to SE (Hockerts, 2015:260; Ernst, 2014:22; Krueger *et al.,* 2008:1; Mair & Naboa, 2006:121; Krueger *et al.,* 2000:411). In a way, this line of research may answer questions such as what preconditions are conducive or even necessary for people to act as social entrepreneurs (Ziegler, 2009:2), which to date remains crucial for policy makers and educators who want to motivate more people to engage in SE (Hockerts, 2017:105). While one may conceive such a behaviour to purely stem from a sense of altruism,

the literature argues for multiple factors that may possibly influence one's intentions to engage in SE (Hockerts, 2015:260; Urban & Teise, 2015:36; Ernst, 2014:219; Nga & Shamuganathan, 2010:259; Durieux & Stebbins, 2010:40; Mair &Marti, 2006:36; Mair & Naboa, 2006:121). For example, in a book titled *Social entrepreneurship for dummies*, Durieux and Stebbins (2010:40) name six factors that could motivate the vision for SE, namely altruism, community engagement, generosity, compassion/sympathy, leisure and volunteerism. Mair and Marti (2006:13) go as far as arguing that altruism is not the only reason for SE, less altruistic reasons such as personal fulfilment could motivate SE. However, whether it is purely altruism or not, further understanding of the underlying motives/determinants of social entrepreneurial intentions among Generation Y university students in South Africa is of relevance to this study. Accordingly, the following hypotheses are derived:

H_{1a}: Attitudes towards SE is positively related to social entrepreneurial intentions.

H_{1b}: Subjective norms are positively related to social entrepreneurial intentions.

H_{1c}: Perceived behavioural control is positively related to social entrepreneurial intentions.

H_{2a}: Perceived social entrepreneurial desirability is positively related to social entrepreneurial intentions.

H_{2b}: Perceived social entrepreneurial feasibility is positively related to social entrepreneurial intentions.

3.7.2 Previous studies on social entrepreneurial intentions

Krueger, Kickul, Gundry *et al*. (2009:3) analysed social venture intentions among 116 entrepreneurship students located in the Northeastern and Western United States with the aim of understanding the different motives of entrepreneurs and social entrepreneurs. They found that participants regarded environmentally sustainable aspects of venture creation as a greater priority than concerns for venture growth. Nevertheless, the findings for the study remained silent on the processes involved in the formation of SE intentions.

In another study, Nga and Shamuganathan (2010:259) examined the influence of personality traits on SE dimensions, including social vision, innovation, sustainability, social network, and

financial support. Thus, they analysed the influence of the big five personality traits on social entrepreneurs' start-up intentions. The study findings revealed a positive influence of agreeableness, openness and conscientiousness on all dimensions of SE intentions, with "agreeableness" exerting a more significant influence across all SE dimensions. Although Nga and Shamuganathan (2010:259) empirically confirmed relationships among a variety of aspects, a survey for more specific effects of SE intentions is still needed.

Tukamushaba, Orobia and George (2011:282) analysed factors that explain international social entrepreneurial behaviour while retaining the variables proposed by Mair and Naboa. Tukamushaba *et al.* (2011:283) developed a theoretical model aimed at providing a plausible explanation for why some individuals are able to discover opportunities in an international setting. While reviewing case studies to see the influence of perceived desirability, perceived feasibility, propensity to act, and intentions, their analysis indicate that individuals' perceptions or attitudes can explain aspects of their international social entrepreneurial potential.

In another study among 249 business management students, Urban (2015:36) proposed several key variables that are important antecedents to social entrepreneurial intentions. While building on Mair and Naboa's model, Urban (2015:37) analysed the influence of independence, achievement, self-efficacy, empathy and moral judgement, vision, social support and innovativeness on SE intentions. Among the factors that were tested, achievement, moral judgement and empathy, and self-efficacy revealed the greatest amount of variance in explaining social entrepreneurial intentions.

Similarly, Hockerts (2015:260) developed and validated measures of the constructs as specified by Mair and Naboa's model. The findings of the study showed support for the specified model in that empathy and moral obligation were positively associated with perceived desirability and self-efficacy and social support with perceived feasibility of starting a social venture (Hockerts, 2015:260).

While there is a growing body of literature on antecedents to SE (Hockerts, 2017:105; Hockerts, 2015:260; Ernst, 2014:85 Mair & Naboa, 2006:121), this line of research is still in its infancy. Although existing studies can empirically confirm a number of antecedents, the process of the formation of social entrepreneurial intentions is quite complex so that no single factor can determine its outcome (Mair & Naboa, 2006:122). A combined approach to understanding these variables is necessary (Shapero & Sokol, 1982:72). Notwithstanding the

complexity of the phenomenon and the subsequent nature of relationships discussed in the extant literature, much more empirical validation of the antecedents to SE intentions at the individual level is necessary (Urban, 2015:37; Baierl *et al.*, 2014:123). Accordingly, to gain additional insight into the antecedents to SE intentions, this study proposes several key variables as important antecedents to SE intentions, namely proactive personality, ethical and investment risk and altruism. These proposed antecedents are discussed in the next section.

3.8 ANTECEDENTS TO SOCIAL ENTREPRENEURSHIP

The literature highlights an endless list of key variables that have been identified as important antecedents to SE intentions. As Urban (2015:40) concurs, the selection of these variables is exhaustive due to the complexity of the process of entrepreneurship intentions formation. Upon reviewing the relevant SE literature, two main theoretical approaches, namely TPB (Ajzen, 1991:181) and the model of social entrepreneurial intention (Mair & Naboa, 2006:122) was used to detect antecedents to SE (Hockerts, 2015:39, Ernst, 2014:22). Although these models have been found to be suitable for SE intention prediction (Hockerts, 2015:260), a recent meta-analysis study by Kruse *et al.* (2018:4) questioned the validity of the construct assessment. The authors found that these models only moderate several relationships between antecedents to SE intentions. Kruse *et al.* (2018:23) recommend that a more robust approach to identifying the antecedents to SE intentions should begin with formulating a comprehensive definition of SE based on existing knowledge available in the literature. Secondly, this comprehensive definition should be used to develop and validate a measure for social entrepreneurial intention. Therefore, antecedents to SE should relate to the key features of the definition of the phenomenon. Thus, the present study is concerned with identifying social entrepreneurial intention, attitude towards SE, subjective norms, perceived behavioural control, perceived social entrepreneurial desirability, proactive personality, ethical risk, investment risk and altruism as antecedents to SE (Liñán & Chen, 2009:593; Mair & Naboa, 2003:8; Hockerts, 2015:271; Bateman & Crant, 1993:103; Blais & Weber, 2006:33; Rushton, Chrisjohn & Fekken, 1981:293).

3.8.1 Proactive personality

Bateman and Crant (1993:103) describe proactive personality as a personal disposition towards proactive behaviour that is relatively stable and effects environmental change. Theorists in the

field of psychology and organisational behaviour posit that the person, environment and behaviour continuously influence each other and the dynamic interaction process is characterised by reciprocal causal links (Bandura, 1986, cited in Bateman & Crant 1993:105). A proactive personality remains relatively unconstrained in identifying opportunities, taking action and perseverance until meaningful change is manifested (Crant, 1995:532). Based on a 17-item proactive personality scale, Bateman and Crant (1993:172) identified proactive personality as a facet distinct from the big five personality traits. It was generalised to include both social and non-social behaviour.

Studies have shown the distinctive dispositional characteristic of proactive personality and its applicability to different criteria. For example, Claes, Beheydt and Lemmens (2005:476) tested the robustness of subsequent unidimensional 10-item, 6-item, 5-item and the 4-item proactive personality scales by doing an internal reliability analysis and factor analysis across independent samples from Belgium, Finland and Spain. The study demonstrated structural equivalence and employability of the various scales to different samples. Although the results did not show internal reliability of the 5-item and 4-item scale, the 6-item scale showed internal consistency for one factor (Claes *et al.,* 2005:477). Besides these results, Prabhu *et al.* (2017:323) found the 5-item proactive personality scale to indicate significant results in determining social entrepreneurial behaviour among Millennials from China, Russia and USA, bearing in mind that proactive behaviour is about creating change and social entrepreneurs are individuals who seek to take action and influence change in their environment. Proactive personality can therefore be proposed as an antecedent for social entrepreneurial intentions among Generation Y university students in South Africa. The following hypothesis can be derived:

H_3: Proactive personality is positively related to social entrepreneurial intentions.

3.8.2 Domain-specific risk-taking

De Carolis, Litzky and Eddleston (2009:531) describe risk-taking as an individual tendency to take or avoid risk. Blais and Weber (2006:1) note that people differ in the way they perceive risk in decision-making. Risk-taking propensity is a major topic of investigation among researchers in social psychology and is considered a personality trait that defines the way individuals perceive risk in different situation (Figner & Weber, 2011:211). Understanding risk as individual behaviour stems from the best-known TRA (Ajzen & Fishbein, 1977; cited in

Weber, Blais & Bets, 2002:266) and the TPB (Ajzen, 1991:182). Simply stated, these theories explain the likelihood of behaviour occurring as a result of individual attitude and subjective norms. As discussed earlier, attitude reflects personal intrinsic and extrinsic personal outcomes and determine whether a particular behaviour is desirable or feasible (Krueger & Brazeal, 1994:93).

Previous research in personality psychology, organisational behaviour, decision research and economics has measured risk in various ways. Much attention has been given to the empirical and theoretical aspects of understanding the construct (Franco & D'Angelo, 2010:2). For instance, in a study among students at the MIT School of Engineering, Lüthje and Franke (2003:135) found that risk-taking propensity has a great influence on the attitude towards self-employment. Similarly, in a recent study that identified the influence of internal and external factors that determined entrepreneurial intentions among university students in Iran, Karimi, Biemans, Mahdei *et al.* (2017:227) identified risk-taking propensity as a significant predictor of entrepreneurial intentions. Furthermore, Blair and Weber (2006:1) propose that, unlike attitude towards risk, risk-taking propensity might have to do with situational or domain-related differences in how risk is perceived. The authors developed a risk-taking scale, also known as domain-specific risk-taking (DOSPERT) scale. The scale allows researchers to assess the willingness to engage in a risky activity commonly encountered in five content domains, namely financial, health and safety, recreational, ethical and social (Blair & Weber, 2006:2). Empirically testing all the risk domains is not the intended focus of the current study. Attention is only given to understanding the influence of financial risk and ethical risk in determining social entrepreneurial intentions among university students in South Africa. Financial risk-taking is proposed as a possible antecedent to SE due to the useful conceptualisation that expected returns of an asset is measured by the risk choice as explained in a capital asset pricing model (Zabarankin, Pavlikov & Uryasev, 2014:508). Similarly, ethical risk is tested in the current study, bearing in mind the assumption that individuals intending to engage in a social business could be associated with having some level of ethical risk. The following hypotheses are formulated:

H_{4a}: Financial risk is positively related to SE intentions.

H_{4b}: Ethics risk is positively related to SE intentions.

3.8.3 Altruism

Batson, Ahmad, Lishner & Tsang, (2016:162) describe altruism as the desire to help another human in a way that is purely motivated by the genuine concern for another's welfare. Research on altruism has produced much philosophical debate. Some early philosophers, such as Adam Smith, associated altruism with a psychological behaviour motivated by feelings of empathy for one individual towards another (Batson *et al.*, 2016:485). Others reported on individual differences in altruistic behaviour as influenced by personal characteristics/traits (Oda, Machii, Takagi *et al.*, 2014:206; Swope, Cadigan, Schmitt & Shupp, 2008:998; Ben-Ner, Kong & Putterman, 2004:581). For instance, in a study focused on evaluating the influence of altruism on the willingness to give money in the dictator game, Ben-Ner (2004:581) found no linear relationship between personality and giving. The results were in the expected direction and in line with previous studies. In a study that aimed to understand the role of altruism in giving, such as donating blood, Otto and Bolle (2011:558) found that students of the European University Viadrina positively associated altruistic behaviour with giving.

Although these studies provided consistent outcomes in terms of expected behaviour in a given situation, a need developed for a measure that captures consistent altruist behaviour across situations. Accordingly, one such measure is demonstrated in the self-report altruism scale (Rushton *et al.,* 1981:293). This study adopts this scale to investigate altruistic behaviour as an antecedent of social entrepreneurial intentions among Generation Y university students in South Africa. Therefore, the following hypothesis was derived:

H_5: Altruism is associated with social entrepreneurial intentions.

3.9 CONCLUSION

This chapter provided a detailed overview of SE. Given the lack of clarity regarding the meaning of SE, the chapter analysed existing definitions of the terms "social entrepreneur" and "social enterprise" found in the extant literature. A content analysis procedure was conducted to find an integrative definition of the terms. The key issues that emerged from the literature included analysing the meaning of SE and its role to the economies worldwide. It further reviewed the history of SE both from a practical point of view and as a scientific field of research. Generally, researchers contend that social entrepreneurship is a young field of

research that lacks clarity of a concise meaning. Against this backdrop, this study analysed existing definitions of social entrepreneur and social enterprise found in the extant literature. Seven key features of each aspect of SE commonly discussed in the literature were derived. Based on these key features, this study derived the definitions of social entrepreneur and social enterprise.

The chapter continued with a discussion on SE intentions. It discussed the meaning of SE intentions and expounded on how individual intentions influence particular behaviour such as social entrepreneurship. In other words, why certain individuals decide on entrepreneurship as an alternative career choice. The chapter highlighted two main theoretical approaches that determine SE intentions, namely the theory of planned behaviour and the model of social entrepreneurial intention prediction. The theory of planned behaviour suggests that intentions to engage in a particular behaviour result from three independent factors, namely attitude towards behaviour, subjective norms and perceived behavioural control. It was noted that the model of social entrepreneurial intentions adapted measures from the model of planned behaviour and proposed that moral judgement, empathy, self-efficacy and perceived social support could be proxies for an individual's attitude towards behaviour, social norms and perceived behavioural control. It was proposed that a combination of these factors could lead to behavioural intentions such as social entrepreneurship. The next chapter discusses the research design and methodology followed in the study.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

The primary objective of this study was to investigate the antecedents to SE intentions among Generation Y university students in South Africa. Chapter 3 provided a comprehensive discussion of SE literature. The chapter noted a rapid increase in SE scholarship. Despite the exponential growth in SE research, the literature also highlighted SE as a young scientific field of enquiry that lacks well-established theories and a robust body of empirical literature (Short *et al.,* 2009:161). To date, the majority of the research on SE has focused on conceptual understanding of the phenomenon (Lee *et al.,* 2014:241), thereby creating a gap when it comes to empirical research on the subject (Short *et al.,* 2009:161). Recent efforts have addressed the recommendations of Short *et al.* (2009:161) on formal hypothesis-testing, especially by investigating antecedents to social entrepreneurial intention (Hockerts, 2017:105; Tiwari *et al.*, 2017:9). There is a need for more effort to establish an appropriate methodology, including developing appropriate measures for antecedents to SE intentions among Generation Y university students in South Africa.

This chapter discusses the methodology adopted for this study to address the primary and empirical objectives. The chapter begins with a discussion of the philosophical orientations and research paradigms that guided the choice of methodology. The chapter continues by discussing the research design. Thereafter, the chapter considers the data collection and statistical analysis procedures employed in the study. The chapter concludes with a reflection on the measures employed to ensure reliability and validity.

4.2 PHILOSOPHICAL UNDERPINNINGS AND RESEARCH PARADIGMS

Understanding the nature of reality and generating knowledge has long been a highly contested topic in research (Cohen, Manion & Morrison, 2011:261). Ideally, research entails a systematic inquiry where data are collected, analysed and interpreted in a way that creates knowledge or describes, predicts and controls philosophical phenomena (Mertens, 2005:2). Stated differently, research tests human subjective reasoning by testing facts that are presented in a systematic and controlled manner (Cohen *et al.,* 2011:264). However, Easterby-Smith, Thorpe and Lowe (2002:27) contend that the outcome and quality of a research depend on the

researcher's thought processes regarding philosophical assumptions or research paradigms. As Aliyu, Singhry and Adamu (2015:3) point out, a research paradigm refers to the framework within which a researcher builds theories and how subjective reasoning shapes a person's understanding of how things are connected. Guba and Lincoln (1994:107) highlight that understanding these research paradigms is easy if they are examined through the questioning lenses of ontological and epistemological assumptions, which in turn determine methodology.

Ontological assumptions relate to our understanding of the real world or how things really are (Bryman, 2011:20). According to Hitchcock and Hughes (1995:19), ontology informs a person's fundamental assumptions about the very nature or essence of being and of what constitutes and structures reality. A person's ontological assumptions determine whether they view social reality as something that can exist independently (Cohen, Manion & Morrison, 2001:5). The research questions are guided by the nature of reality, giving rise to questions such as, "What is there that can be known and the form or nature of that reality?" Consequently, ontological assumptions lead researchers to take a position regarding their perception of how things are and how they really work (Crotty, 1998:10). Epistemology on the other hand refers to an area of philosophy that studies how people acquire and justify knowledge (Saunders, Lewis & Thornhill, 2007:102). When examining their epistemology, individuals come to know the theories and beliefs they hold about knowledge or the manner in which such knowledge form part of and influence their way of thinking or reasoning (Hofer & Pintrich, 1997:88). Similarly, Scotland (2012:9) contends that epistemological questions guide researchers to know how knowledge can be acquired and communicated to others.

Scotland (2012:9) argues that the philosophical assumptions of ontology and epistemology are merely "conjecture" in that research paradigms emanating from these assumptions cannot be proven or disproven empirically. This has left some researchers in the midst of "research paradigm wars" (Denzin, 2010:419; Symonds & Gorard, 2010:123). Scotland (2012:9) explains that research paradigms inherently contain differing ontological and epistemological views with differing assumptions of reality and knowledge that underpin the particular research approach. Mark (2010:5) asserts that a researcher's ontological and epistemological views that affect the research process reflect in choice of research methodology and methods. In other words, researchers generally face the dilemma of determining how the methodologies and methods relate to theoretical underpinnings of research (Crotty, 1998:1). To this end, Grix

(2002:176) views methodology as concerned with the logic of scientific enquiry, which includes an investigation of the potentialities and limitations of particular research methods.

The key paradigms that compete as the paradigms of choice to inform and guide enquiry include positivism, post-positivism, constructionism and critical theory (Guba & Lincoln, 1994:107). The positivist paradigm, also called the scientific paradigm, rose to prominence as a result of the writings of a French philosopher, Auguste Comte (Mark, 2010:6). According to Crotty (1998:19), Comte popularised the positivist paradigm when he sought to apply the natural world to the social world. Generally, the positivist research paradigm applies scientific research methods such as statistical analysis and generalisation of findings. It is based on the premise that research is about proving or disproving a hypothesis (Schulze & Kamper 2014:131). The positivist paradigm holds differing assumptions with regard to the premises of ontology and epistemology. Considering ontology, the scientific paradigm adheres the theoretical assumption that reality is subjectively captured in that objects exist independently from the knower (Cohen, Manion & Morrison, 2007:7). The basic link between positivism and epistemology is one of objectivism where research involves going about discovering absolute knowledge about an objective reality (Scotland, 2012:10). Additionally, Grix (2004:64) is of the view that the epistemological assumption of positivist paradigm relates to the uncovering of the truth where knowledge rests on a set of firm, unquestionable, indisputable findings from which subjective beliefs may be deduced.

Post-positivism represents the traditional form of research and this is also true for quantitative research. Scotland (2012:10) describes the post-positivist understanding as one of causal relationships, such as those used in experimentation and/or correlational studies. Furthermore, Creswell (2013:7) sees the post-positivist paradigm as a refinement of the positivism paradigm that not only seeks to understand the causal relationships between effects or outcomes; but also develops knowledge through careful observations or measurement of the objective reality in the real world.

The constructivist approach subscribes to the notion that the world is constructed, interpreted and experienced by people during their interactions with each other and with the wider social systems (Guba & Lincoln, 1985:110). Although individuals' views may not be completely true and at times alterable due to realities of association, the constructivist paradigm maintains that the researcher is an active participant in the research process (Schulze & Kamper, 2014:132). At the same time, the constructionist paradigm affirms that individuals in their capacity as

social actors remain central to the creation of knowledge through the process of social interaction with the researcher (Bryman, 2011:19). The ontological assumption of constructivism regards reality as indirectly constructed based on individual interpretation and as subjective. The epistemological assumptions of the constructivist paradigm entail that knowledge is gained through a strategy that "respects the differences between people and the objects of natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action" (Grix, 2004:84). Using the example of a tree, Crotty (1998:43) explains that it is human beings that gave the tree its name. In other words, a tree is not a tree without someone naming it so. It is not discovered to be a tree, but rather constructed as a tree through the interactions between consciousness and the world (Scotland, 2012:11). Thus, knowledge is gained through personal experiences (Mark, 2010:8).

Critical theory subscribes to the notion that people can construct and design their own world through action and critical reflection (Guba & Lincoln, 1994:113). Researchers critique their social, political, cultural, economic, racial and gender values through confrontation with the aim of not only giving an account of behaviours in societies, but also to change them (Mark, 2010:9). The ontological assumption of critical theory holds to the view that social behaviour is the outcome of "particular illegitimate, dominatory and repressive factors". This is also referred to as the historical realism (Scotland, 2012:13). Guba and Lincon (1994:110) see historical realism as a paradigm shift to a view that reality is shaped by the social, political, cultural, economic, ethnic, and gender values. In the same vein, Frowe (2001:185) understands reality as a passive occurrence where knowledge is constructed through the interaction between language and aspects of an independent world. Scotland (2012:13) denotes the epistemological assumptions of critical theory as subjective, based on the influence of real world phenomena and societal ideology. In other words, what constitutes worthwhile knowledge is based on the combined influence of the social and positional power of the advocates of that knowledge (Cohen *et al.*, 2007:27). A summary of these research paradigms is presented in Table 4.1.

Table 4.1: Categories of scientific paradigms and their classifications

Classification	Research paradigm			
	Positivism	**Critical theory**	**Constructivism**	**Realism**
Ontology	Reality is real and apprehensible	"Virtual" reality is shaped by social, economic, ethnic, political, cultural, and gender values, crystallises over time	Multiple local and specific "constructed" realities	Reality is "real" but only imperfectly and probabilistically apprehensible
Epistemology	*Objectivist:* findings true	*Subjectivist:* value mediated findings	*Subjectivist:* created findings	*Modified objectivist:* findings probably true
Common methodologies	*Experiments/ surveys:* verification of hypotheses: chiefly quantitative methods	*Dialogic/dialectical:* researcher is a "transformative intellectual" who changes the social world within which participants live	*Hermeneutical / dialectical:* researcher is a "passionate participant" within the world being investigated	*Case studies/convergent interviewing:* triangulation, interpretation of research issues by qualitative and by some quantitative methods such as structural equation modelling
Note: Essentially, ontology is "reality", epistemology is the relationship between that reality and the researcher, and methodology is the technique used by the researcher to investigate that reality.				

Source: Guba and Lincoln (2005:193)

While noting that research paradigms guide research, Creswell Clark, Gutmann and Hanson (2003:186) advise that researchers should focus on adopting a technique that works and provides solutions to the research problem at hand. For that reason, this study was guided by the positivist paradigm to quantitatively investigate antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. Quantitative research methods are commonly applied when the research problem calls for the verification or identification of factors that influence outcomes, the utility of an intervention, or if research requires an understanding of the best predictors of outcomes (Creswell, 2013:20).

4.3 RESEARCH DESIGN

A research design is the overall plan or set of philosophical assumptions according to which the researcher relates a conceptual research problem to relevant and practicable empirical research (Ghauri & Gronhaug, 2010:54). Simply stated, Zikmund *et al*. (2012:66) explain the research design as "a master plan that specifies the methods and procedures for collecting and analysing the needed information". Fundamentally, the aim of a research design is to ensure that the evidence obtained in a research project enables the researcher to answer the initial question as unambiguously as possible (De Vaus & De Vaus, 2001:9). Subsequently, the choice of a research design depends on whether the research is exploratory or conclusive (Malhotra, 2010:106).

An exploratory research design is suitable for a problem that is not clearly defined. It focuses on the discovery of ideas and insights as opposed to collecting statistically accurate data. Accordingly, exploratory research design is flexible, not planned or structured (Zikmund, 2003:21). On the other hand, conclusive research is designed to assist the researcher in evaluating and choosing a better course of action in a given situation. Furthermore, a conclusive research design can be descriptive or causal in nature. Descriptive research is conducted when there is a need to explain something in detail or to describe the data from the population being studied. It is conclusive (Mitchell & Jolley, 2012:225). It can be used to test a hypothesis about any variable in any situation to find out who, where and when questions describing one variable relate to another variable **(**Mitchell & Jolley, 2012:226). In this case, the research question is planned or structured and the information collected can be statistically generalised to a population (Malhotra, 2010:106). However, descriptive research cannot be used to arrive at inferences about cause and effect in a situation. The researcher therefore considered applying a causal research design. Similar to descriptive research, causal research aims to answer the why-question (De Vaus & de Vaus, 2001:2). A causal research design aims to investigate the cause and effect relationships between variables (Zikmund *et al.,* 2012:106). Table 4.2 provides a summary of the differences between exploratory and conclusive research designs.

Table 4.2: The characteristics of exploratory and conclusive research designs

	Exploratory research	Conclusive research	
		Descriptive research	Causal research
Amount of uncertainty characterising decision situation	Highly ambitious.	Partially defined.	Clearly defined.
Features/ research approach	Flexible, unstructured.	Hypotheses-based, Structured.	Variable control, structured.
When conducted?	Early stage of decision-making.	Later stages of decision-making.	Early stage of decision-making.
Techniques used	Focus groups, in-depth interview, mostly qualitative research.	Surveys, observation, panel data, mostly quantitative research.	Experimentation.
Key research statement	Research question.	Research question.	Research hypothesis.

Source: Researcher's own compilation

For the purposes of this research, the researcher followed a descriptive research design to investigate the antecedents to SE intentions among Generation Y university students in South Africa. As discussed, this approach was followed due to its ability to allow the researcher to describe data and apply the findings to a larger population.

4.4 RESEARCH APPROACH

A research approach refers to the plans and procedures and includes the broad steps and the detailed methods of data collection, analysis and interpretation of research findings (Crotty, 1998:3). The literature advances three research approaches from which a researcher can select, namely qualitative, quantitative and a mixed-method approach (Creswell, 2013:4). Qualitative research is an approach for exploring and understanding the meaning that individuals or groups ascribed to a social or human problem. As Trim and Lee (2004:284) attest, qualitative research methods are used to understand complex issues where researchers draw insight from a narrow focus on case studies and grounded theory. Qualitative research makes use of small samples and the results cannot be generalised to a larger population. When using qualitative methods, the researcher makes more of an effort during the final phase of the research when the data are

categorised into phrases, ideas and sentences to provide in-depth information on the participants' personal experience in a natural setting (Berrios & Lucca, 2006:181).

Quantitative research methods emphasise the statistical or numerical analysis of data collected using questionnaires or surveys to test theories and examine relationships among variables (Creswell, 2013:4). Quantitative research methods aim to quantify research data in an effort to gather conclusive evidence that can be generalised to a larger population (Malhotra & Pearson, 2014:150). In quantitative research, the researcher makes use of closed-ended narrow questions to obtain measurable and observable data to test variables using an instrument such as a questionnaire (Creswell, 2013:28). Furthermore, quantitative researchers test theories deductively, while protecting the research against any biases and controlling for alternative explanations. Such research requires a large number of representative cases (Malhotra & Pearson, 2014:151). A quantitative research approach is structured and its findings can be treated as conclusive. A researcher can recommended a final course of action based on such research (Creswell, 2013:27). The mixed-methods approach combines qualitative and quantitative approaches in the same project. Considering the discussed characteristics of the various methodological approaches, this study employed a quantitative research design to determine the antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. Table 4.3 provides a summary of the characteristics of qualitative and quantitative research methods.

Table 4.3: Differences between qualitative and quantitative data analysis

Qualitative method	Quantitative method
• Emphasises understanding • Focuses on understanding from the respondent's point of view • Interpretation and rational point of view • Observations and measurements in natural settings • Subjective, insider's view, and closeness to data • Holistic view • Process-oriented • Generalisation by comparison of properties and context of individual organism	• Emphasis on testing and verification • Focuses on facts and/reasons for social events • Logical and critical approach • Controlled measurement • Objective, outsider's view, distant from data • Particular and analytical • Results-oriented • Generalisation by population membership

Source: Ghauri & Gronhaug (2010:105).

4.5 SAMPLING: DESIGN AND PROCEDURES

Sampling is a systematic five-step procedure that guides the researcher in defining the target population, determining the sample frame, selecting a sampling technique, determining the sample size, and executing the sampling process (Malhotra & Birks, 2007:406). A carefully executed sampling design has profound effects on the quality of data and research results (Malhotra & Peterson, 2014:320). The sections below describe the steps in greater detail.

4.5.1 Target population

Sampling design begins by determining the target population. According to Burns and Grove (2005:345), population for research refers to "all the elements such as, individuals, objects or substances that meet a certain criteria for inclusion in a given universe". In the same vein, Malhotra and Peterson (2014:326) describe a target population as a collection of elements or objects that possess the information the researcher is seeking and for who inferences could be made. Zikmund (2003:293) posits that it is important to define the target population as precisely as possible as it gives the researcher the ability to identify the proper sources from which data can be collected. In view of that, a target population should define the elements from which the information has to be collected, the sampling units available for selection at the time of data collection, the extent or geographical boundaries of elements to be included as population, and time frames under consideration (Martins, Loubser & Van Wyk, 1996:251). Therefore, the target population for this study comprised all undergraduate and postgraduate university students registered in South African in all fields of study for the 2018 academic year. Furthermore, in an effort to improve the robustness of the study findings, a different set of students from a different cultural and economic background was added as target population. Therefore, the target population included all university students that were registered for the 2018 academic year in South Africa. University students were chosen as a target population for this study due to their potential to become social entrepreneurs in future. According to Bosma and Levie (2010:7), university students possess the potential talent, interest and energy to become the next generation of social entrepreneurs.

4.5.2 Sampling frame

A sampling frame is a representation of the elements of the target population (Cant, 2003:164). Ideally, creating a sampling frame allows the researcher to identify a list or sets of units in the

population that best describe the target population (Malhotra & Peterson, 2014:326). Examples of sampling frames include, but are not limited to, telephone directories, city directories, mailing lists, maps and list of students attending a university. However, there are times when the researcher may experience a sampling error, that is, a situation where elements in a population are omitted due to difficulties or imperfections in the model used in the determination process (Malhotra & Peterson, 2014:327). In such cases, the researcher must recognise and treat the cause of that error timeously. The sample frame for this study comprised a selection of five public universities in South Africa and one university in Germany.

4.5.3 Sampling techniques

Sampling techniques are procedures that determine the manner in which the sample will be drawn (Cant, 2003:165). In the selection of a sampling, method Berndt and Petzer (2011:7899) advise that it is important that the researcher chooses an appropriate technique that effectively draws a sample that represents the population well. The researcher can choose between probability and non-probability sampling techniques (Ghauri & Gronhaug, 2010:139).

In probability sampling, each unit has a known chance of being selected to be part of the sample. The results drawn from such a sample can be generalised to the population at large (Ghauri & Gronhaug, 2010:139). The amount of sampling error allowed is low and the population should be heterogeneous (Cant, 2003:176). Examples of probability sampling include simple random sampling, systematic sampling, stratified sampling and cluster sampling (Cant, 2003:170). Simple random sampling is the best-known sampling technique where each element in the sample has a known chance of being selected. It is a technique that is easy to understand and apply. However, to employ simple random technique, the researcher has to get a list of all elements in the population, which makes it expensive to implement (Ghauri & Gronhaug, 2010:139). Systematic sampling involves sampling where elements in the sample are selected based on intervals, for example, selecting 1000 from a population of 100 000 elements. Systematic sampling will involve selecting a first element between the interval 1 and 100. An interval is determined by dividing 100 000 by 1000. Stratified sampling involves a two-step procedure of first dividing the population into subgroups, called strata or segments. In the second step, elements are randomly selected from each stratum to be included in a sample. Cluster sampling is similar to stratified sampling. The only difference between the two

techniques is that cluster sampling requires subdividing the target population into equal groups to ensure equal representation.

Non-probability sampling relies on the researcher's personal judgement. The chance that elements in the population will be included in the sample is not known (Malhotra, 2010:376). With non-probability sampling, the possibility of making valid inferences about research findings is valid, but within certain limits (Ghauri & Gronhaug, 2010:139). Furthermore, non-probability samples are easy to draw and are usually favoured when the researcher is mindful of the cost implications, especially when a broad view of the population has to be obtained (Wagner *et al.*, 2012:92). Examples of non-probability sampling techniques include convenience sampling, judgemental sampling, quota sampling and snowball sampling (Cant, 2003:165). Convenience sampling relates to the selection of elements in the sample for the researcher's convenience. Convenience sampling can be used for pretesting a questionnaire during a pilot test or used in focus groups. Judgemental sampling entails selecting sample elements based on the researcher's personal judgement on whether the chosen elements will form an appropriate sample. Generally, judgemental sampling is relatively cheap and easily accomplished. However, the researcher should take precautions when making conclusions about the population. Quota sampling involves randomly drawing a sample from a quota where the characteristics of interest represent the population. Quota sampling may include dividing a population according to age or gender and the proportions of the quota sample will be the same as in the population. Snowball sampling denotes selecting an initial group of respondents. Thereafter, the first batch of respondents refers the researcher to other respondents that fit the characteristics of the target population. The process continues causing a snowball effect until the number of elements is satisfied. Usually, snowball sampling is applicable when the names of potential respondents are not available.

The sample elements for this study were selected based on non-probability sampling techniques. More specifically, the sample elements from the five universities in South Africa was selected for the researcher's convenience and personal judgement. A sample among participants from Germany was included in the analysis to improve on the findings of the study. The German sample was also selected for the researcher's convenience and that it was a sample from a different cultural and economic background different from South Africa. These techniques were selecting because of their cost-effectiveness and the accessibility of the sample elements.

4.5.4 Sample size

Sample size comprises the number of elements to be included in the study (Malhotra & Birks, 2007:408). Sample size determination is a difficult and important step in planning a statistical study. Cant (2003:177) argues that the sample size must be large enough to ensure that reliable and valid conclusions could be made about the population. However, the process can be complex due to a number of qualitative and quantitative factors that have to be considered first (Malhotra & Birks, 2007:436). For example, the researcher has to consider qualitative factors such as the nature of the research, the importance of the decision, the number of variables, the nature of the analysis, resource constraints and the rate of completion. Similarly, the quantitative factors considered during sample size determination should be based on the traditional statistical inferences such as specifying the desired width in a confidence interval, standard deviation, sample means and proportions. One of the popular approaches to sample size determination involves employing historical methods where a justification of a particular sample size is determined based on samples used in previous studies (Nga & Shamuganathan, 2010:269).

This study used a sample comprising university students from South Africa (N=514) and university students from Germany (N=190). Although the main objective of the study was to investigate the antecedents of social entrepreneurial intention among Generation Y university students in South Africa, the German sample was included in the analysis to further ascertain scale validity of the scale as indicated in the second empirical objective. The aim was to test the newly developed social entrepreneurial intention scale on a sample from a different economic, social and cultural background; thereby improve the findings of the study. The German sample was chosen as a matter of convenience for the researcher. The total sample size used in the study was deemed adequate following similar sample sizes in previous studies. For example, in a recent study, Hockerts (2017:112) employed a sample of 257 students to determine antecedents to social entrepreneurial intentions among second-year management students at a Scandinavian business school. Similarly, Tiwari *et al.* (2017:2) employed a sample size of 390 undergraduate students in India in a study that aimed to identify social entrepreneurial intentions. Likewise, Raposo *et al.* (2008:411) used a sample size of 316 students at the University of Beira in Portugal in a study that tried to identify the profile of potential entrepreneurs. Still more, Urban (2008:246) conducted an exploratory study to

ascertain SE activity (SEA) among 287 students in South Africa. Based on these examples, a total sample size of N=704 ($N=514_{SA}$ + $N=190_{GER}$) was considered adequate.

4.6 DATA COLLECTION

Data collection is an integral part of the research process that involves a precise and systematic gathering of opinions and views for the purposes of answering a research problem (Murthy & Bhojanna, 2010:241). According to Ghauri and Gronhaug (2010:31), data are carriers of information and differ between secondary and primary sources. Secondary data sources are those that are readily available and were previously collected for other purposes, for example data previously collected by international organisations or the government. The advantage of using secondary data is that they are usually readily available and cost-effective to obtain. Such data may also be of high quality when compiled by experts that use rigorous methods (Ghauri & Gronhaug, 2010:90). However, secondary data may come with some serious disadvantages. For instance, when data were previously collected for another research problem, it may not completely fit your particular problem. Due to such disadvantages, researchers are encouraged to use primary data sources. As defined by Ghauri and Gronhaug (2010:99), primary data are data that are collected for a particular research problem. The advantage of employing primary data collection methods is that specific data are collected that are consistent with the research problem and may further allow the research to gather detailed information regarding the respondent's opinion about the research problem. Therefore, the selection of suitable tools is paramount when collecting data in order to enhance the quality of research.

This study used secondary sources to conduct an extensive literature study in the field of entrepreneurship and SE while using both the local and international literature. A literature study is the process of reviewing the literature related to a particular study (Creswell, 2013:27). A review of prior literature provides a framework for establishing the importance of a study and it serves as a benchmark for comparing a study's results with some previous findings (Creswell, 2013:28). Additionally, it is essential for any academic project to review prior relevant literature to advance knowledge and facilitation of theory development, while closing off certain research areas and uncovering new areas of research (Webster & Watson, 2002:xiii). The secondary sources that were consulted include book publications, academic journals, conference papers and web-based sources such as Science Direct, Emerald and Google Scholar.

This study employed primary data sources to investigate the antecedents to SE intentions among Generation Y university students in South Africa. The study used a questionnaire to collect data regarding the antecedents to SE intentions among Generation Y university students in South Africa. The next subsection discusses the questionnaire design.

4.6.1 Questionnaire design

A questionnaire is a common measuring instrument that consists of questions used to obtain information from research participants. The questionnaire is the heart of a survey and it has to be crafted with best practices to minimise response errors (Krosnick & Presser, 2010:275) Effective questionnaire design must include questions that translate the required information into questions suitable for respondents to answer. Furthermore, a well-designed questionnaire should be planned in a way that encourages respondents to participate in the survey. Therefore, the questionnaire in this study was designed bearing in mind the study objectives. More specifically, attention was given to the specific information required, content to be included in each question, structure of the questions, wording of the questions, sequence and layout of the questions.

To measure antecedents to SE intentions, the questionnaire design entailed two steps. The first step involved developing and validating a social entrepreneurial intentions scale (SEI). Items used to structure the SEI scale were adapted from the definitions of "social entrepreneur" and "social venture"/"social enterprise" identified in the literature (Austin *et al.,* 2006:2; Bacq & Janssen, 2011:388; Cukier *et al*., 2011:99; Dacin *et al.,* 2010:37; Hervieux *et al.,* 2010:37; Lee *et al.,* 2014:241; Mair & Marti, 2006:36; Mair & Noboa, 2006:121; Peredo & McLean, 2006:56; Santos, 2012:335; Short *et al.,* 2009:161; Wry & York, 2017:437). The second step involved including items from previously developed scales to determine construct validity of the newly developed SEI scale. For that reason, the researcher adapted existing scales previously used to measure attitude towards entrepreneurship, subjective norms, perceived behavioural control (Liñán & Chen, 2009:612), social entrepreneurial intentions, perceived social entrepreneurial desirability, perceived social entrepreneurial feasibility (Hockerts, 2015:264), proactive personality (Bateman & Crant, 1993) ethical risk, investment risk (Blais & Weber, 2006:42), altruism (Rushton *et al.,* 1981:290), and commercial entrepreneurial intention (Liñán & Chen, 2009:612).

4.6.2 Questionnaire format

Questionnaire format entails the general layout of the questionnaire. The layout should make it easy for respondents to read and complete and should reduce measurement errors (Ghauri & Gronhaug, 2010:119; Fanning, 2005:1). When formatting the questionnaire for this study, the researcher paid attention the structure using the concept of scaling. There are four primary levels of measurement, namely nominal, ordinal, interval and ratio (Wagner *et al.*, 2012:77). The nominal scale is the lowest scale that assigns numbers to objects for identification. The ordinal scale indicates the relative position of the object distinct from other objects. The interval scale involves ranking numbers to some order with equal distances in between the numbering. The ratio scale is the highest level of measurement that allows the researcher to identify or classify objects, while at the same time ranking them and comparing their differences. This study used the nominal level of measurement where numbers were used to answer both demographic and SE intentions questions.

4.6.3 Questionnaire layout

Ghauri and Gronhaug (2010:125) highlight that layout is an important aspect to address when designing a measuring instrument. The authors recommend that the questionnaire must look neat and tidy as this may influence the response rate. Additionally, Malhotra (2010:352) mentions that questionnaire layout is improved when sections are divided and numbered accordingly. Therefore, the questionnaire for this study was structured into sections. Each section consisted of closed-ended questions that included items to measure antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. The questionnaire was developed in English, which one of is the languages of instruction for university students in South Africa. The questionnaire included a cover letter that gave a brief background to the study and requested respondents to complete the questionnaire as honestly and accurately as possible. The final questionnaire used in the study is found in Annexure A. The questionnaire layout was as follows:

Section 1 consisted of questions requesting demographic information from the participants. Students were requested to provide information on their gender, age, nationality, race, level of education, and field of study.

Sections 2 of the questionnaire was a nine-item newly developed social entrepreneurial intention scale. Initially, the items were inductively constructed from a pool of 90 definitions of "social enterprise" and "social entrepreneur" that covered facets of the social entrepreneurial intent as identified in the extant literature. The 90 definitions were then reduced to 32 items using the technique of content analysis. The inductive process involves repeated examination and comparison of themes emerging from raw data in the form of recordings or other printed material, especially when exploring unfamiliar phenomena where little theory exists (Hinkin, Tracey & Enz, 1997:105). Exploratory factor analysis was employed to create a distinct one-factor structure for measuring social entrepreneurial intention. The test was conducted to validate the 32 items using a sample of university students in South Africa (N=95). Subsequently, social entrepreneurial intention was measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with items, such as, *I have the intention to found an enterprise that… is dedicated to discovering new ways to solve problems in society (e.g. poverty, no or limited access to education and healthcare)* included as an example of social entrepreneurial intention.

Additionally, to confirm item suitability and increase the robustness of the social entrepreneurial intention scale, the factorability of the scale was checked using samples of university students in South Africa (N= 514) and university students in Germany (N=190). At this stage, the items for this scale were translated to German to accommodate the respondents from the university in Germany. The translation-back-translation method was applied to ensure that the German and English versions matched each other throughout the process (Brislin, 1970:185). Back translation is a useful tool that pays particular attention to sensitive translation problems across cultures. According to Brislin (1970:185), back translation is a procedure where a translator or team of translators not previously involved in the project translate a target text back into the original source language. The source text and the back translation are then compared to measure the accuracy of the translation that produced the target text. Improper translation can disrupt the accuracy of results and jeopardise the truthfulness of the final study findings. To prevent this, the items used to measure the social entrepreneurial intentions were translated from English to German and back to English by experienced professors in the field of psychology at the University of Dresden, Germany. The process was completed with minor glitches and the scale was successfully used on the Germany sample.

Sections 3 contained items measuring entrepreneurial intentions. These items were adapted from the Entrepreneurial Intentions Questionnaire (EIQ) by Liñán and Chen (2009:593) and were used to measure social entrepreneurial intentions on three subscales, namely attitudes towards entrepreneurship, subjective norms and perceived behavioural control. *Attitude towards* SE, i.e. the subjective evaluation of the career as a social entrepreneur, was measured using a five-item scale measured on a 7-point Likert scale that ranged from 1 ("strongly disagree") to 7 ("strongly agree"). An example item was "*A career as a social entrepreneur is attractive for me". Subjective norms*, i.e. the social pressure of important other people and its influence on a person's decision to found a social enterprise were measured using four items on a 7-point Likert scale that ranged from 1 ("not at all") to 7 ("very much"), e.g. *"If you decided to create a social enterprise, would people in your close environment approve of that decision? – Your friends". Perceived behavioural control*, i.e. the extent to which one believes oneself to be capable of founding and running a social enterprise was measured with five items on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). An example item was "*I know the necessary practical details to start a social enterprise"*. The unweighted mean of all scales was also included as a general measure for *social entrepreneurial intention*. In order to ensure a suitable adaptation of the EIQ, a brief description of key elements of social enterprises and the role of social entrepreneur was offered at the beginning of the section to acquaint the participants with the concepts before they filled in the EIQ. Additionally, all items in the EIQ scale were reformulated to clarify that the scale measures social and not general entrepreneurial intention.

Section 4 comprised statements that were used to measure social entrepreneurial antecedents. These antecedents explain *Perceived SE-desirability*, i.e. the attractiveness of pursuing a career as a social entrepreneur and *perceived SE-feasibility*, i.e. the conviction that one has the required resources and capabilities to found a social enterprise (Mair & Naboa, 2003:8). The construct was measured using the Social Entrepreneurial Antecedents Scale (SEAS) by Hockerts (2015:271). The SEAS scale was measured on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Perceived SE desirability was examined on a ten-item scale and comprised statements such as*, "I feel compassion for socially marginalised people".* On the other hand, perceived SE feasibility was measured with eight items and comprised statements such as "*I could figure out a way to help solve the problems that society faces".*

Section 5 consisted of items measuring *Proactive personality*, i.e. the tendency to be active and affect one's environment. It was measured using the five-item Proactive Personality Scale of Bateman and Crant (1993:103). A 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) was used. An example item was "*I can spot a good opportunity long before others can".*

Section 6 contained items measuring *risk-taking.* This construct was adapted from the Domain-Specific Risk-Taking (Adult) Scale by Blais and Weber (2006:33). The items were measured on a 7-point Likert scale from 1 ("extremely unlikely") to 7 ("extremely likely"), participants indicated the probability of them performing certain actions. *Ethical risk-taking*, i.e. the preparedness of a person to take risks in moral domains, was measured with six items, e.g. "Not returning a wallet you found that contains $200". In order to measure *investment risk-taking*, i.e. the preparedness of a person to take risks in financial domains we used three items, e.g. "Investing 10 percent of your annual income in a new business venture".

Section 7 of the questionnaire consisted of items that measured *altruism.* The term altruism entails the ability to generously or unselfishly help other people who are more vulnerable or less privileged in society. The construct was measured using a six-item scale from the Self-Report Altruism Scale designed by Rushton *et al.*, 1981:293). The scale was measure on a 5-point Likert scale ranging from 1 ("never") to 5 ("very often"). An example item was "*I have done volunteer work for a charity"*.

Section 8 included items that measured entrepreneurial intentions. These items were adapted from the six-item Entrepreneurial Intention Scale (EIS) by Liñán and Chen (2009:593). The EIS is one of the most widely used measures of commercial entrepreneurial intentions. The scale included items such as "*I will make every effort to start and run my own commercial enterprise"*. The items were measured on a 7-point Likert scale from 1 ("strongly disagree") to 7 ("strongly agree").

Section 9 of the questionnaire comprised items used to examine criterion validity. The objective of this section was to determine the level at which the research participants had prior *knowledge about the concept of* SE and self-initiated *actions in the field of* SE. This level of awareness was rated using a 7-point Likert scale that ranged from 1 ("not at all") to 7 ("very much"). Regarding knowledge, three items were used, for example, "*I had been familiar with the term 'social entrepreneur' before participating in this study"*. For analysing self-initiated

actions, five items were used, including, *"I have invested time and effort to inform myself about a career as a social entrepreneur".*

4.7 ADMINISTRATION OF THE QUESTIONNAIRE

Questionnaire administration methods are evolving due to the influence of technology. Roberts (2007:5) highlights a number of methods researchers can use to administer a questionnaire, namely face-to-face interviews, telephone interviews, self-administered questionnaires, and computer-assisted self-interviews. The questionnaire for this study was administered to the German students through an online email link. The questionnaire was attached and sent to all students registered at the Technical University of Dresden, Germany. The questionnaires were self-administered to the South African students. The researcher arranged to meet the South African students at their respective universities and the questionnaires were administered during and after classes. All questionnaires were collected immediately after students had completed them. The researcher planned to administer the questionnaires at a time when the students had minimal pressure related to their studies. Accordingly, the questionnaire was administered to the South African students in the period from mid-February to the end of mid-April. A similar approach was followed with the students at the German university. This approach to questionnaire administration was followed to improve data quality and efficient time management while reducing costs to the researcher.

4.8 DATA PREPARATION

Each phase in the research process is critical for the quality, reliability, integrity and credibility of a research project. During data preparation, the researcher has to make decisions about how raw data would be prepared before it is subjected to statistical analysis (Cant, 2004:185). According to Malhotra and Birks (2007:475), the essential steps that should not be ignored when preparing data for analysis include checking the questionnaire, editing, coding, transcribing, data cleaning, statistically adjusting the data and selecting a data analysis strategy. The following sections briefly describe these steps.

4.8.1 Questionnaire checking

Questionnaire checking involves reviewing all questionnaires for minor errors that may jeopardise the data collection process (Cant, 2004:186). It is a continuous process that can be done as soon as the first set of questionnaires has been completed. The objective of this process is to detect and solve any problems early while data collection is still underway (Malhotra & Peterson, 2006:406). The researcher checked the completed questionnaires for this study during the period of data collection. Since the researcher administered the questionnaires, problems could in some instances be detected and resolved on site.

4.8.2 Editing

Questionnaire editing involves reviewing the completed questionnaires to detect illegible, inconsistent, or ambiguous responses (Malhotra & Peterson, 2006:406). If a respondent is easily identifiable, the questionnaires with unsatisfactory responses can be returned to the respondent for correction. Otherwise, the questionnaire is simply discarded. In this study, 580 questionnaires were completed out of a total of 800 questionnaires that were sent out to university students in South Africa. Upon editing, 66 questionnaires were discarded due to ambiguous and missing responses.

4.8.3 Coding

Ghauri and Gronhaug (2010:151) describe coding as some sort of classification where data from all responses are categorised or classed in a manner that addresses the research problem. Data may be coded in the form of numbers and this process is usually easy if the questionnaire contains only structured questions where codes are already assigned before fieldwork begins (Malhotra & Birks, 2007:479). An example of pre-coded items in a questionnaire is a rating scale, such as a Likert scale. However, there are times when a questionnaire includes items that are unstructured, in other words, items with open-ended questions. In such cases, the researcher is required to code the data after the data collection process has been completed. In this study, Section 2 to Section 8 of the questionnaire included items pre-coded on Likert scales that ranged from 1 to 7, where 1 represented “Strongly disagree”, “Extremely unlikely”, or “Not at all” and 7 indicated “Strongly agree”, “Extremely likely” and “Very much like me” (see questionnaire in Annexure A). However, the researcher had to assign codes to the sociodemographic section of the questionnaire. For example, gender was coded so that 1

represented male participants and 2 represented female participants. Table 4.4 gives a summary of the codes used in Section 1 of the questionnaire.

Table 4.4: Socio-demographic variable codes

Socio-demographic variable	Assigned codes
Gender	1=Male 2=Female
Age	This was treated as a continuous variable and no code was assigned
Nationality	1=South African 2=Other nationality
Race	1=Black 2=White 3=Coloured 4=Indian 5=Chinese 6=Other
Level of education	1=Undergraduate 2=Honours 3=Masters 4=PhD 5=Other
Field of study	1=Commerce, Law and Management 2=Psychology 3=Humanities 4=Education 5=IT 6=Engineering 7=Other

4.8.4 Transcription

Transcription involves keying in coded data into a computer spreadsheet for further analysis. This step is necessary when data are collected on a hard copy or using audio-recordings. The process is not necessary if data were collected via the internet. In this study, the researcher transcribed the data to an Excel spreadsheet.

4.8.5 Cleaning for statistical adjustments

When data entry is done manually, there is a possibility that errors may occur. Therefore, the researcher has to evaluate and clean possible errors in the data. Such errors may include inconsistencies or response values that may appear out of range (Malhotra & Birks, 2007:491).

4.8.6 Analysis for strategy selection

This is an important and interesting step of data preparation that involves selecting the appropriate strategy to analyse the data. According to Malhotra and Birks (2007:491), data analysis aims to produce information that will help address the research problem. Therefore, the selection of which strategy to use should begin with looking at the research problem, research approach and research design (Malhotra & Peterson, 2006:414). It may happen that some of the initial plans made in the research process change in light of additional information generated in the subsequent stages of the research process. Generally, the researcher has the choice of either applying univariate techniques or multivariate techniques. The characteristics and examples of the tests used in these techniques are presented in Table 4.5.

Table 4.5: A classification of statistical techniques

Statistical technique	Classification	Example tests
Univariate techniques	• Appropriate for a single measurement of an element. • If there are several elements, each variable in the elements is measured independently.	t-test, Z-test, One-one ANOVA, Paired t-test, Chi-square, Frequency, K-S, Runs, Binominal, Mann-Whitney, Median, K-W ANOVA, Sign and McNemar
Multivariate techniques	Suitable when there are two or more measurements for each element. Variables are analysed simultaneously.	Cross-tabulations, ANOVA, Multiple regression, Two-group discriminant analysis, Conjoint analysis, Factor analysis, Canonical correlation and Cluster analysis

Source: Malholtra (1993:470)

This study examined the antecedents of SE intentions among Generation Y university students in South Africa. To achieve the primary objective of the study, the researcher applied the multivariate statistical technique. More specifically, the study used factor analysis test to

develop and validate a social entrepreneurial intentions scale; structural equation modelling to determine the model fitness of the newly developed social entrepreneurial intention scales; correlation analysis to determine the relationship among SE intentions antecedents; and regression analysis to determine the strength of the relationship among the SE antecedents. The next section discusses the procedure followed during data analysis.

4.9 DATA ANALYSIS

Data analysis is the process of transforming raw data into meaningful information that can be used to make inferences about a phenomenon (Ghauri & Gronhaug, 2010:152). Proper data analysis requires the researcher to set analysis objectives by deciding on the information needed to achieve the research objectives (Cant, 2003:166). There are two important types of data analysis that require a closer look when conducting research. These are descriptive and inferential data analysis (Cant, 2004:204). The following paragraphs briefly discuss descriptive and inferential data analysis and their application to the current study.

4.9.1 Descriptive statistics

Descriptive analysis is the most basic statistical analysis that allows the researcher to summarise raw data to describe the basic characteristics of the data, such as central tendency, distribution and variability (Cant, 2004:204). According to Lomax and Hahs-Vaughn (2013:6), descriptive statistics allow the researcher to summarise and organise data by describing the characteristics of the data in a meaningful way. This study employed descriptive statistical techniques to report on the frequencies, means and standard deviation of the variables of gender, age, race and level of education. IBM SPSS (Version 25) was used to analyse the demographical data on a total sample of university students from South Africa and Germany (N= 704)

4.9.2 Inferential statistics

Inferential analysis is a statistical procedure that is used to make predictions about the population from the observed analyses of a sample (Ghauri & Gronhaug, 2010:153). In other words, inferential statistics allows the researcher to study samples, to make generalisations about the population and to reach conclusions that are beyond the immediate data. Therefore,

this study employed inferential statistical techniques to determine the antecedents to SE intentions among Generation Y university students in South Africa. To achieve the primary objective, the following three empirical objectives were formulated:

- To develop and validate a social entrepreneurial intention scale among university students in south Africa;
- To test the validity of the social entrepreneurial intention scale among university students in Germany
- To determine the strength of linear associations among antecedents to SE intentions; and
- To identify strength of the relationship between social entrepreneurial intention and the antecedents to SE intentions.

Additionally, as discussed in Section 4.8.6 and summarised in Table 4.5, the following multivariate data analysis tests were used to address the research problem.

4.9.3 Factor analysis

Factor analysis is an umbrella term that denotes a class of procedures primarily used for data reduction and summarisation (Malhotra & Birks, 2007:646). The objective of applying factor analysis to a study is to summarise data so that relationships and patterns can be interpreted and understood easily **(**Yong & Pearce, 2013:74). According to Ghauri and Gronhaug (2010:189), factor analysis addresses the problem of analysing the structure of interrelationships among large number of variables by defining a set of common dimensions, also known as factors. Factor analysis can be divided into exploratory and confirmatory factor analysis.

4.9.4 Exploratory factor analysis

Exploratory factor analysis (EFA) is a multivariate technique for uncovering complex patterns when exploring a data set and testing predictions (Child, 2006:108). EFA is one of the common statistical techniques that are conducted on a data set for various reasons. For example, Ullman (2006:37) suggests conducting EFA when the researcher has a large set of variables that may be linked together by virtue of an underlying structure. In view of that, the researcher conducts EFA to reduce data to a smaller set of summary by eliminating ambiguous items from the structure (Haig, 2010:77). Similarly, EFA may be conducted when the researcher wants to

discover the number of factors influencing variables by analysing correlated, uncorrelated or smaller sets of salient variables from a larger set of observable variables (Malhotra & Birks, 2007:647). EFA is also appropriate when building scales or new metric, usually in the early stages of scale development and construct validation to determine the appropriate number of common factors in a data set (Yong & Pearce, 2013:80).

In this study, EFA was conducted to address the first empirical objective of the study. The objective was to develop and validate a social entrepreneurial intention scale among university students in South Africa. Accordingly, the test was conducted on a 32-item social entrepreneurial intention scale using a sample of university students in South Africa (N=95). The test was used to reduce the number of items in the scale and to identify one distinct factor structure for the social entrepreneurial intention scale. The statistical package, IBM SPSS (Version 25), was used to explore the dimensionality and item suitability of the newly developed social entrepreneurial intention scale.

4.9.5 Confirmatory factor analysis

Confirmatory factor analysis (CFA) is a multivariate statistical procedure that is used to test how well the measured variables represent the number of constructs (Statistics Solutions, 2013:1). As the name suggests, CFA is a confirmatory technique that is used to test a hypothesised structure or competing theoretical models of the structure (Ullman, 2001:37). Furthermore, CFA allows the researcher to specify the number of factors required in the data and subsequently validate the measurement scale to either confirm or reject the theory (Brown & Moore, 2012:363). Generally, CFA is used to confirm or reject the measurement theory identified in the exploratory analysis (Harrington, 2009:11).

In this study, CFA was conducted to confirm the results of EFA discussed in Section 4.9.4. The test was conducted to confirm or reject the theoretical structure relating to the first empirical objective of this study. The test was run using samples of university students from South Africa (N=514) and university students from Germany (N=190). Principal component analysis (PCA) was conducted to confirm item suitability and robustness of the developed social entrepreneurial intention scale. According to the Kaiser criterion, a component is based on the number of the highest eigenvalue (Malhotra, 2010:643). By definition, an eigenvalue is the variance associated with a factor. CFA was conducted on two different samples to check the extent to which the factor structure and the validities of the social entrepreneurial intent scale

remain robust on a sample from another cultural cluster (Gupta, Hanges & Dorfman, 2002:11) and under different economic circumstances (Bosma *et al*., 2016:12)

4.9.6 Structural equation modelling

Structural equation modelling (SEM) is a collection of statistical techniques that allows for an examination of a set of relationships between one or more discrete or continuous independent variables (IVs) and dependent variables (DVs) (Ullman & Bentler, 2012:1). Typically, the term SEM represents a pictorial modelling of a series of structural processes that enable a clearer conceptualisation of the theory under study (Byrne, 2016:3). The objective of conducting SEM in an analysis determines the extent to which the theoretical model is supported by the sample and allows for more complex models to be hypothesised (Lomax & Schumacker, 2004:16). Additionally, SEM analysis has become a popular analytical tool for testing theories among researchers due to a number of unique characteristics (Byrne, 2016:3). Firstly, SEM takes a confirmatory approach to the analysis of structural theory bearing on some phenomenon, which lends itself well to the analysis of data for inferential purposes. Secondly, Byrne contends that SEM provides explicit estimates of error variance, a feature that traditional multivariate techniques are incapable of doing. According to Lomax and Schumacker (2004:19), most analyses have treated the measurement error as separate from the statistical analysis, which has created a major issue concerning the validity and reliability of observed scores in a measurement instrument. Lastly, SEM procedures are capable of incorporating both unobserved and observed variables, and provide researchers with an alternative and more efficient method for modelling sophisticated theoretical models. Following these characteristics, this study employed SEM to determine the goodness-of-fit between the hypothesised social entrepreneurial intention model and the sample data. Figure 4.1 graphically describes the hypothesised SEM for the study.

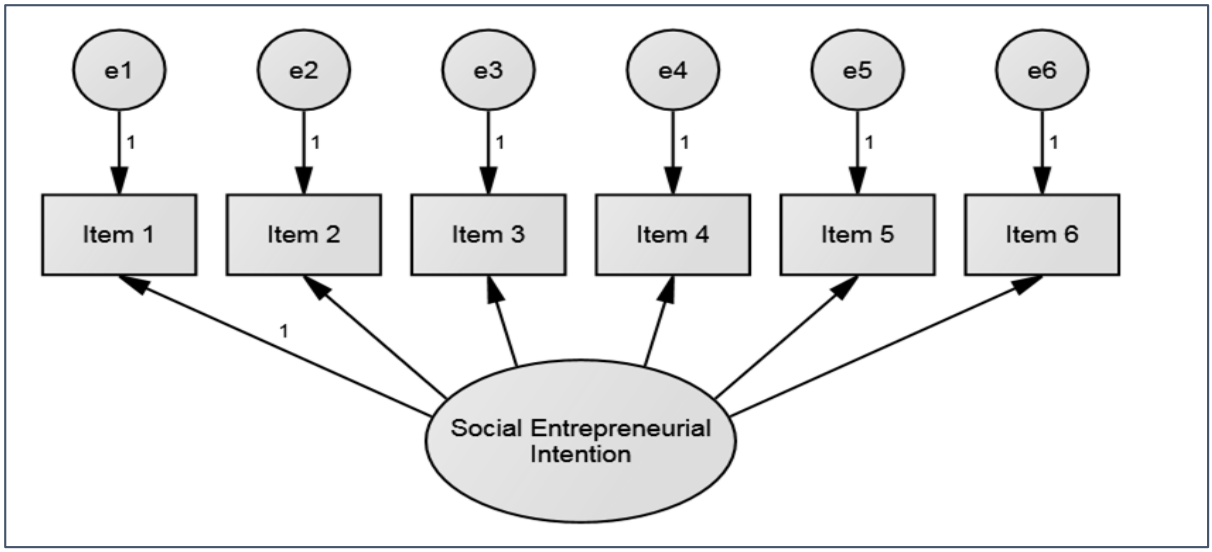

Figure 4.1: Social entrepreneurial intention hypothesised factor structure

As depicted in Figure 4.1, SEM models are usually illustrated visually and include various symbols that represent variables and their interrelationships. The circle with the label "social entrepreneurial intention" represents a latent variable or factor, in other words a variable that cannot be directly measured (Byrne, 2016:19). Item 1 to Item 6 are observed variables that are used to measure the latent variable. E1 to E6 represent the residual error in the predictions of an unobserved factor. Overall, the model defines the relationship between scores on a measuring instrument and the underlying construct to be measured, also known as a measurement model. Therefore, with regard to this study, social entrepreneurial intention is the underlying construct to be measured and items 1 to 6 are the scores that are used to measure the underlying construct.

SEM was conducted on the sample of university students from South Africa (N=514) and university students from Germany (N=190). The SEM analytical package applies two main classified models of fit indices, namely incremental and absolute fit indices (Pituch & Stevens, 2015:653). Incremental fit indices are used to measure the proportionate improvement in a model's fit to the data by comparing a specific structural equation model *k* to a baseline structural equation model (Pituch & Stevens, 2015:653). Consistent with Kline (2015:140), a baseline model is a null model where all the variables are independent of each other or uncorrelated. The commonly used incremental fit indices include the normed fit index (NIF), the incremental fit index, the Tucker-Lewis index (TLI) and the comparative fit index (CFI)

(Pituch & Stevens, 2015:653). Traditionally, model fit indices with values of ≧.90 are considered to fit the data accurately.

On the other hand, absolute fit indices measure how well a structural equation model reproduces the data (Pituch & Stevens, 2015:653). The commonly used absolute fit indices include goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), McDonald's fit index (MFI), the root means-square error of approximation (RMSEA) and standardised root mean-square residual (SRMSR). However, when it comes to accuracy of acceptable fitness to the data, a variety of acceptable thresholds are considered. These values and their level of fitness are summarised in Table 4.6

Table 4.6: SEM absolute fit indices

Fit index	Recommended cut-off	Level of fitness
GFI	≧.90	Perfect fit
AGFI	≧.90	Perfect fit
MFI	≧.90	Perfect fit
SRMSR	0 to .05 .05 to .10	Good fit Acceptable fit
RMSEA	.05 and less .05 to .08	Close fit Adequate fit
Note: RMSEA is the only fit index that is supplemented by a confidence interval and an associated *p*-value. This means that if a value of .05 is contained within the 90 percent confidence interval associated with the RMSEA, a *p*-value of greater than .05 is recognised as evidence of acceptable model fit.		

Source: Pituch and Stevens (2015:654-55)

Given the various types of model fit indices available in SEM, Kline (2015:141) recommends a report on the Chi-square test statistics with corresponding degrees of freedom and level of significance, as well as the CFI, the GFI, the RMSEA and SRMR to be included in the presentation of results.

4.9.7 Correlation analysis

A correlation analysis is a statistical technique for identifying and quantifying the associations between a set of *x*-variables on the one hand and a set of *y*-variables on the other (Ghauri &

Gronhaug, 2010:193). As stated by Cohen, West and Aiken (2014:3), a correlation analysis is a flexible data-analytic system that may be used whenever a quantitative variable has to be studied as a function of or in relationship with any factors of interest. In a correlation, coefficient values lie between -1 (negative correlation) and +1 (positive correlation) (Bosco *et al.,* 2015:431). A coefficient of zero means no correlation, values of ±.1 represent a small effect, ±.3 is a medium effect and ±.5 is a large effect (Field, 2009:829).

Additionally, researchers can either use the Pearson correlation coefficient (r) and Spearman rank order correlation coefficient (rho) (Hair, Black, Babin & Anderson, 2010:316). The Pearson correlation coefficient (r) is a measure of the strength of a linear association between two quantitative variables measured on a continuous scale (Maree, 2007:238). The Spearman rank order correlation is a non-parametric alternative measure to the Pearson correlation. The test measures the strength and direction of association that exists between two variables measured on at least an ordinal scale (Hair *et al.,* 2010:316). This study used Pearson correlation to address the third empirical objective. The aim was to examine the strength of linear association between *Social entrepreneurial intention* and *Attitudes towards entrepreneurship, Subjective norms, Perceived behavioural control, Perceived feasibility, Perceived desirability, Proactive personality, Investment risk, Ethical risk* and *Altruism* among Generation Y university students in South Africa. In other words, the test was used to examine convergent and divergent validity between the newly developed social entrepreneurial intention scale and the existing scales.

4.9.8 Regression analysis

Regression analysis is one of the more widely used statistical techniques that describes, explains and predicts relationships between variables (Ghauri & Gronhaug, 2010:177). Essentially, a regression analysis is a mathematical answer of predicting an outcome variable from one or several predictor variables (Field, 2009:198). According to Von Eye and Schuster (1998:1), a regression analysis is easily understood and can be implemented in virtually every statistical package. There are various types of regression analyses, such as simple linear regression, simple multiple regression, stepwise regression, hierarchical and logistic regression (Cohen *et al.,* 2014:661). However, going into the detail of all the types of regression is not the intention of this study. Among the numerous regression analyses, this study will be limited to the understanding of the hierarchical regression. A hierarchical regression analysis is

conducted when the researcher is interested in testing theoretical assumptions while examining the influence of several predictor variables in a sequential way (Petrocelli, 2003:10). In the analysis, the relative importance of a predictor variable may be judged on the basis of how much it adds to the prediction of a criterion, over and above that which can be accounted for by other important predictors (Cohen *et al.*, 2001:523).

This study conducted hierarchical regression analysis to examine the relationship among the antecedents to social entrepreneurial intentions as indicated in the fourth empirical objective of the study. More specifically, the aim was to examine the relationship between *Social entrepreneurial intention* and *Attitudes towards entrepreneurship, Subjective norms, Perceived behavioural control, Perceived feasibility, Perceived desirability, Proactive personality, Investment risk, Ethical risk, Altruism* among Generation Y university students in South Africa. The analysis was run on a statistical package IBM SPSS (version 25) on a sample of university students in South Africa (N=514). In SPSS, the *Model fit* option is selected by default and derives a summary with values of R, R^2 and the adjusted R^2 (Field, 2009:206). R indicates the correlation between the predicted values and the observed variable. R^2 is a measure of how much of the variability in the outcome is accounted for by the predictor variables. The adjusted R^2 provides some idea of how well the model generalises and it is preferred that its value be the same or close to the value of R^2.

Five regression models were developed to determine the strength of relationship among the antecedents to social entrepreneurial intentions. Model 1 tested the effect of the demographic variables as control variables, including *Gender, Age* and *Level of Education*. Model 2 tested the effects of *Attitudes towards entrepreneurship, Subjective norms, Perceived behavioural control*. These variables were considered as predictors of social entrepreneurial behaviour based on an existing entrepreneurial intentions model of the TPB (Liñán & Chen, 2009:593). Model 3 tested the effect of *Perceived feasibility* and *Perceived desirability* based on Mair and Naboa's (2006:121) social entrepreneurial intentions model. Model 4 tested the effect of *Proactive personality*. This is a construct not represented in the existing intentions models (Liñán & Chen, 2009:593; Mair & Naboa, 2006:121), but it has been characterised as a factor that influence social entrepreneurial behaviour (Prabhu *et al*., 2017:323). Model 5 tested the effects of *Investment risk, Ethical risk* and *Altruism*. These are also factors that have not been empirically linked to antecedents to SE before, but are added to the analysis as they fit the definitive criteria of antecedents to SE.

4.10 RELIABILITY

Bagozzi (1994:17) describes reliability as the agreement between independent attempts to measure the same theoretical concept. It is what Ghauri and Gronhaug (2010:79) simply describes as the stability of measurement. A measurement is reliable if a measuring instrument produces the same results every time repeated measurements are made. Malhotra (2010:318) further argues that measures can only be unreliable when a random error is present. Otherwise, if the errors are consistent, they do not have an impact on reliability.

Reliability is established in terms of internal consistency or the test-retest reliability (Bagozzi, 1994:17). The latter takes the form of repeated measures of the same theoretical concept over time and can be estimated based on the correlations between the measures across time. A widely used measure of internal consistency is Cronbach's alpha, α (or coefficient alpha), developed by Cronbach in 1951 (Wagner *et al.*, 2012:82). According to Ghauri and Gronhaug (2010:81), Cronbach's alpha is a measure of intercorrelations between the different indicators that are used to capture different constructs. Furthermore, Malhotra (2010:319) indicates that the resulting α coefficient of reliability ranges from 0 to 1 in providing the overall assessment of a measure's reliability. Values of 0.6 and below indicate unsatisfactory internal consistency and values above 0.6 indicate internal consistency. The Cronbach's alpha test was conducted on the antecedents to SE intentions, thus Section 2 to Section 9.

Churchill (1995:483) warns that although reliability is necessary in measurement, a reliable measure is not necessarily valid, meaning that when a measuring instrument has passed a reliability test, its validity still has to be ascertained.

4.11 VALIDITY

Hair *et al.* (2010:776) describe validity as the extent to which a set of measured items actually reflect the theoretical latent construct of the items that should be measured. Thus, the extent to which a measuring instrument actually measures what it is supposed to measure and the degree to which it is both systematic and free of error (Clow & James, 2013:269). Validity is an important key to effective research and is a requirement for both qualitative and quantitative research (Winter, 2000:1). In qualitative research, validity may take the form of a careful approach to data collection where honesty, depth, richness and scope of the data collection

process are achieved. For quantitative research, validity begins with careful sampling, appropriate instrumentation and statistical treatment of data. Five types of validity are necessary for meaningful and interpretable research findings, namely face validity, content validity and construct validity (Ghauri & Gronhaug, 2010:81). These are briefly discussed in the following sections.

4.11.1 Face validity

Face validity is the most basic form of validity and means that researchers or experts in the field have determined that the measuring instrument measures what should measure **(**Ghauri & Gronhaug, 2010:81). Therefore, to ensure face validity in this study, the measuring instrument was first assessed by the researcher. A follow-up assessment was done by a Professor and two experienced PhD students in the field of psychology from the Dresden University, Germany, as well as an experienced researcher in the field of economics from the North-West University, South Africa. Face validity may be sufficient for the validation of certain items included in the questionnaire, such as requesting demographic information. However, certain items may be more complicated to validate with face validity.

4.11.2 Content validity

Content validity involves a systematic process of assessing the adequacy of the items used to measure a construct (Clow & James, 2013:270). This process may involve a series of steps that may begin with a literature review of how other researchers have measured the concepts involved in the study. The process includes an assessment of the identified construct by a panel of experts in the field of study. The researcher is required to pre-test the identified items by administering the items to a sample similar to the intended target audience. Finally, the researcher should analyse the sample data to reduce the number of items using either factor analysis or correlation analysis. Therefore, with content validity, the researcher is able to reduce the number of items/constructs in a measuring instrument, especially when the items/constructs in the questionnaire have high levels of correlation (Clow & James, 2013:270).

This study followed the procedure for content validity to develop and validate the scale designed to measure social entrepreneurial intention. Upon reviewing the literature on the definitions of “social entrepreneur” and “social enterprise”, 90 definitions were identified.

These definitions were further assessed by a panel of experts in the field of psychology from Dresden University, Germany. Thirty-two items were selected and included in the questionnaire for further analysis. The procedure was followed by a pilot test of the questionnaire on a small sample of university students in South Africa (N=95). EFA was conducted on the 32 items to further reduce the number of items to be included in the main survey.

4.11.3 Construct validity

Construct validity is the most crucial and difficult part of validity testing. According to Cant (2003:235), construct validity expresses the extent to which a measure behaves in a theoretically sound manner, for example, when investigating the relationship between the concerned measure and measures of other concepts or characteristics within a theoretical framework. As argued by Cohen, Morrison and Manion (2017:187), construct validity agrees on the operationalised form of the constructs and involves the articulation of the meaning of the constructs under study and if it truly measures what it intends to measure. There are two important types of construct validity, namely convergent validity and divergent or discriminant validity (Clow & James, 2013:271).

4.11.3.1 Convergent validity

Convergent validity refers to the extent to which multiple measures or methods for measuring the same construct yield similar results. As discussed in the previous sections, the questionnaire for this study was designed to measure *Social entrepreneurial intention, Attitudes towards entrepreneurship, Subjective norms, Perceived behavioural control, Perceived feasibility, Perceived desirability, Proactive personality, Investment risk, Ethical risk* and *Altruism* as antecedents to SE intentions among Generation Y university students in Gauteng. Therefore, to ascertain convergent validity among the antecedents, a correlation analysis test was run on a sample of university students in South Africa (N=514) and university students in Germany (N=190), using IBM SPSS (Version 25).

4.11.3.2 Discriminant validity

Discriminant validity, also referred as divergent validity, tests whether concepts that are not supposed to be related are actually unrelated. This study tested divergent validity by testing the

relationship between the newly developed social entrepreneurial intention scale (Section 2 of the questionnaire) and entrepreneurial intention scale (Section 8 of the questionnaire). Items to measure entrepreneurial intentions were adapted from the commonly used EIS by Liñán and Chen (2009:593). The researcher tested whether the EIS measure for entrepreneurial intention is actually unrelated to the newly developed measure for social entrepreneurial intention. Similarly, the test was conducted using the statistical package IBM SPSS (version 25) using a sample of university students in South Africa (N=514).

4.12 CONCLUSION

The objective of this chapter was to discuss the research design and the methodology used in the study. The study applied a quantitative research approach to achieve the empirical objectives of the study. The chapter outlined the sampling strategy employed in the study followed by a discussion on the population, sampling frame, sampling techniques and sample. A questionnaire with scales adapted from the extant literature was discussed. The statistical package used for data analysis was discussed along with the tests employed during the data analysis. The tests included EFA, CFA, SEM, correlation analysis and regression analysis. The next chapter presents the results of the data analysis and an interpretation of the results.

CHAPTER 5: DATA ANALYSIS AND INTERPRETATION OF RESULTS

5.1 INTRODUCTION

In Chapter 4 the research methodology used in this study was discussed. This chapter presents the results of the study. The chapter begins with a report on the demographic profile of the survey participants. It continues with a discussion of the pilot study, followed by a discussion of the main survey results.

5.2 DEMOGRAPHICAL PROFILE OF PARTICIPANTS

Section 1 of the questionnaire comprised items relating to the demographic profile of the survey participants. As indicated in Chapter 4 (Section 4.5.4), data for the study were collected among university students from South Africa (N=514) and Germany (N=190). The main objective of the study was to investigate antecedents of social entrepreneurial intentions among university students in South Africa. However, the researcher included a sample of participants from Dresden University, Germany to improve on the study findings. This sample was not specific to Generation Y university students. Including a diverse sample was necessary to determine if the social entrepreneurial intention scale could produce similar results when tested on a sample from a different cultural, economic and social background. Accordingly, the demographic information from the two samples used were reported separately. The respondents were asked to indicate their gender, age, nationality, ethnic race, level of education and field of study. The following sections discuss the demographic profile of the survey participants.

5.2.1 Gender

Participants in the survey were requested to state their gender. A total number of 514 university students from South Africa participated in the survey. Among the participants, 280(54.5%) were female and 234(45.5%) were male. Table 5.1 provides a summary of the statistics for the gender variable with respect to the South Africa sample.

Table 5.1: Gender – South Africa

Gender	Frequency	Percent	Valid Percent	Cumulative percent
Male	234	45.5	45.5	45.5
Female	280	54.5	54.5	100.0
Total	514	100.0	100.0	

Similarly, participants from a university in Germany were requested to indicate their gender. A total number of 190 students participated in the survey. Among the participants, 139(73.2%) were female and 50(26.3%) were male. One (0.5%) of the participants preferred not to indicate his/her gender category. Table 5.2 shows a summary of the gender frequencies for the participants from Germany.

Table 5.2: Gender – Germany

Gender	Frequency	Percent	Valid percent	Cumulative percent
Female	139	73.2	73.2	73.2
Male	50	26.3	26.3	99.5
Missing	1	.5	.5	100.0
Total	190	100.0	100.0	

5.2.2 Age distribution

The age distribution among participants from the South African sample ranged between 17 and 35 years. The majority of the participants were between the ages of 18 and 23 years. Figure 5.1 illustrates the age distribution of the survey participants from South Africa.

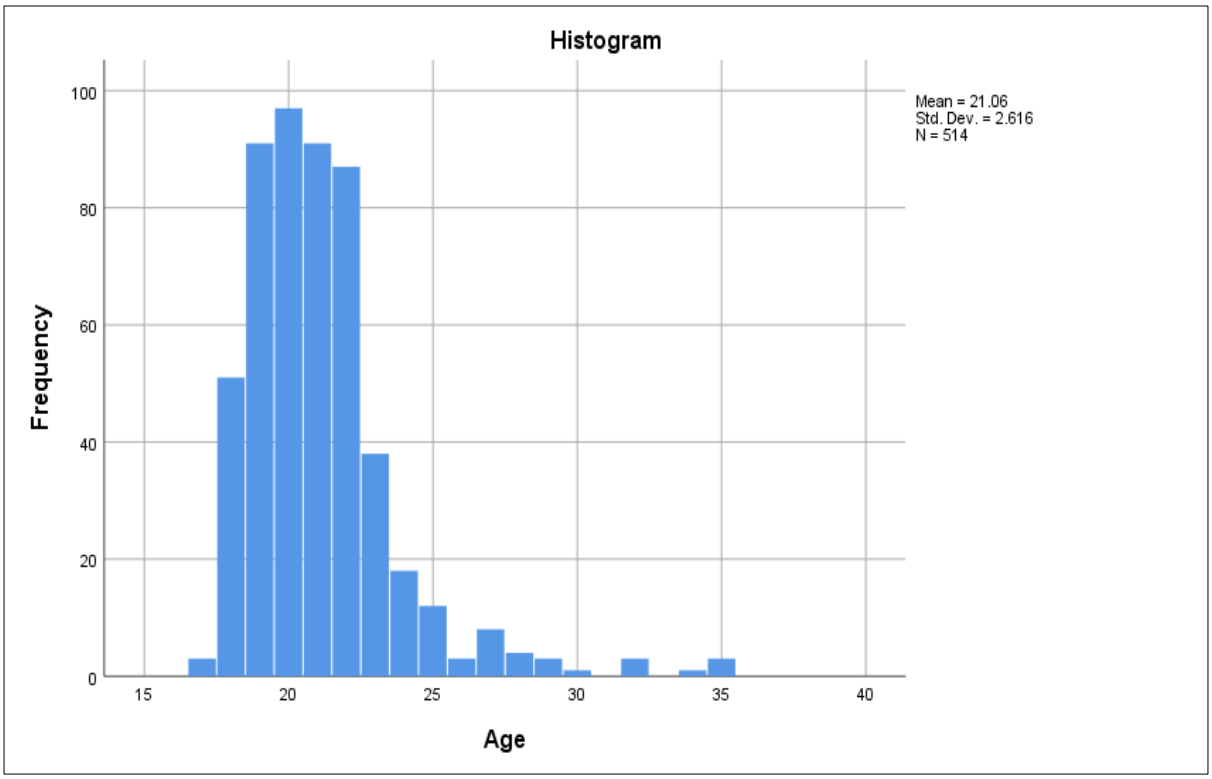

Figure 5.1: Age distribution –- South Africa

The participants in the German sample were aged between 35 and 65 years. Although the graph illustrates high numbers of participation between the ages of 19 and 32, a significant number of the participants were aged over 40 years. The researcher deliberately included participants in the older age group to reflect on the findings of the *Entrepreneurship in Germany* report (Federal Ministry for Economic Affairs and Energy, 2017:12). The report stated that in 2016, 17 percent of the new businesses were started by people between the ages of 45 and 54 years and this group accounted for 26 percent of the population in Germany. Therefore, it was recommended that the age groups of 40 years and older should be regarded as having entrepreneurial potential that should not be neglected. Figure 5.2 illustrates the age distribution of the survey participants in the German sample.

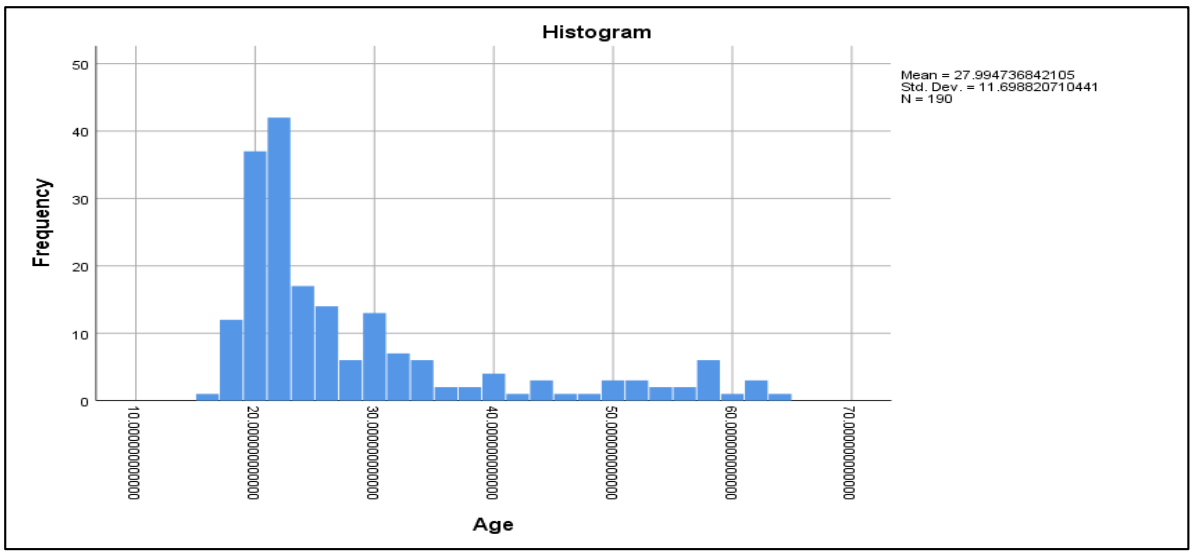

Figure 5.2: Age distribution –- Germany

5.2.3 Race

The population included participants from different races. Among the 514 participants from the South African sample, 380 (73.9%) were black/African, 52(10.1%) were white, 27(5.3%) were coloured, 52(10.1%) were Indian and 3(0.6%) were Chinese. This distribution reflects the demographics of the South African population where blacks are a majority. According to the 2017 population estimates, blacks constitute 80.8 percent, whites 7.9 percent, coloureds 8.7 percent and Indians 2.6 percent of South Africa's total population (Statistics South Africa, 2017:2). Figure 5.3 illustrates the distribution of the South African data according to race.

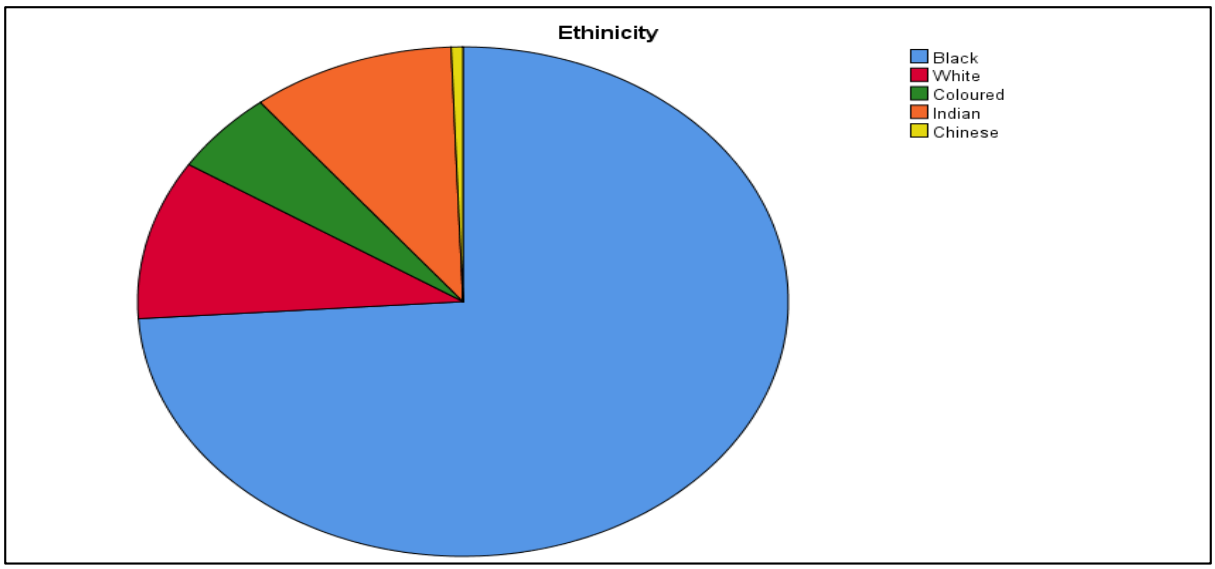

Figure 5.3: Race distribution – South Africa

The demographic profile according to race was also analysed for the German sample. The results indicated that among the 190 individuals that participated in the survey, 186 (97.9%) were white and 4 (2.1%) of the participant indicated to be in the category of other race. Figure 5.4 provides an illustration of the racial distribution of the participants in the German sample.

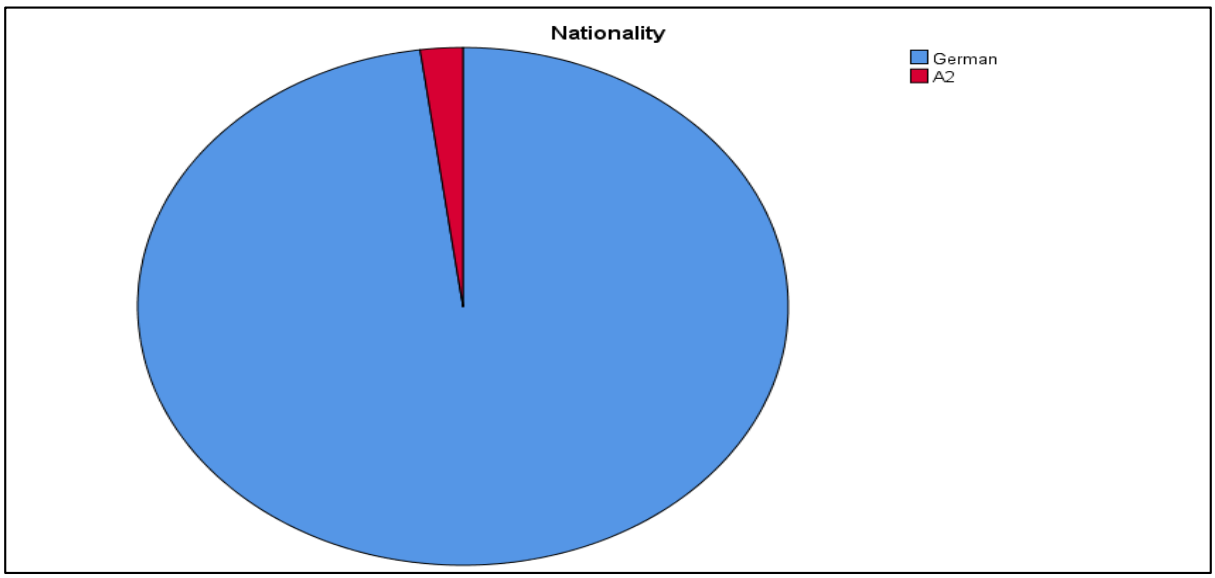

Figure 5.4: Race distribution – Germany

5.2.4 Level of education

Participants in the survey were asked to indicate their level of education. Among the 514 participants from the South African sample, 462(89.9%) were undergraduate students, 39(7.6%) were studying towards an honours degree, 7(1.4%) were pursuing a master's degree and 5(0.2%) were PhD students. Figure 5.5 outlines the demographic distribution according to level of education among the participants in South Africa.

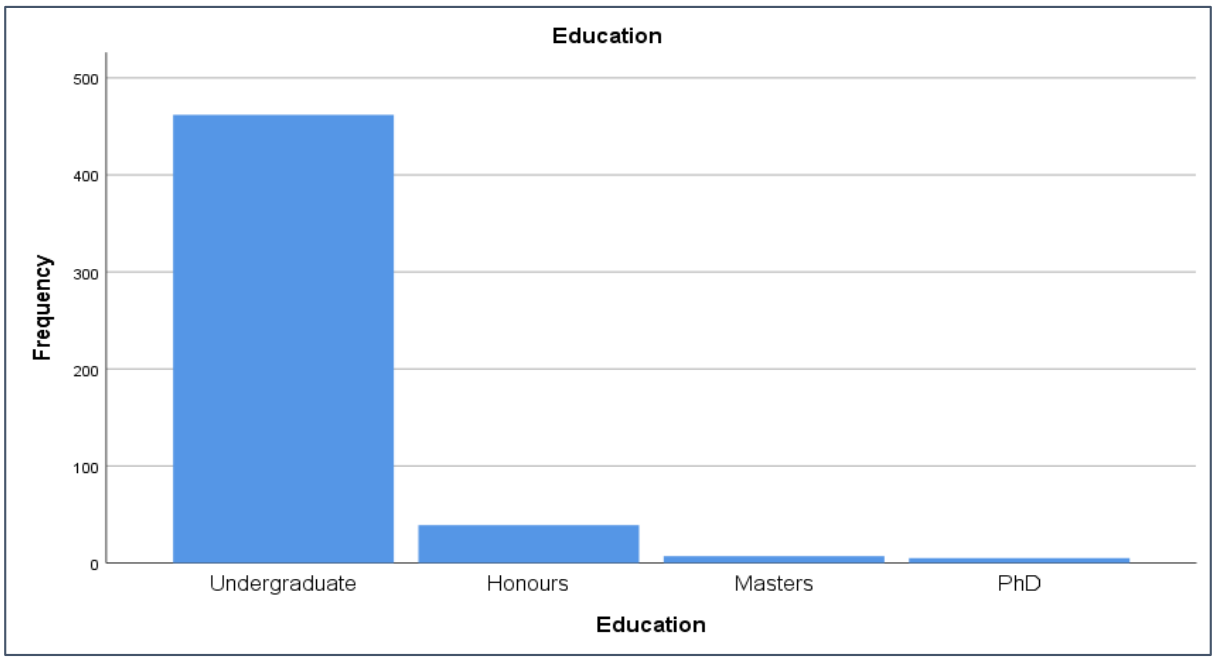

Figure 5.5: Level of education – South Africa

The survey participants from the German university were also requested to indicate their level of education. From a total number of 190 participants, 6(3.2%) did not indicate their level of education, 6(3.2%) indicated that they had no education, 104(54.7%) participants were studying towards their bachelor's degree at university, 14(7.4%) had completed a diploma, 15(7.9%) had completed a bachelor's degree, 17(8.9%) had completed a master's degree, 3(1.6%) of the participants had attained a promotion, also known as a doctorate in engineering, and 25(13.2%) of the participants had completed vocational training. The German sample included participants who fell outside the target population for this study. For example, participants with no educational experience and those who had only completed vocational training were included. The researcher included the data from a variety of participants to increase the robustness by checking if the results would remain the same when analysed using

a data set with various characteristics. Additionally, the German data included other categories of participants to obtain study results that better matched the entrepreneurial reality in Germany (Federal Ministry for Economic Affairs and Energy, 2017:12). Figure 5.6 illustrates the demographic distribution according to level of education among participants in Germany.

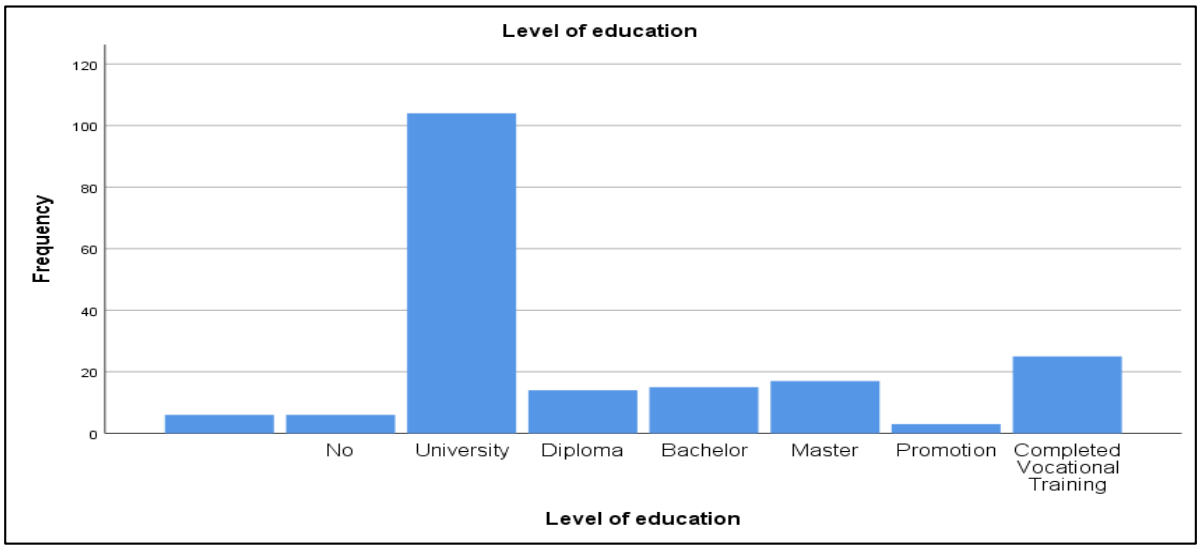

Figure 5.6: Level of Education – Germany

5.3 PILOT STUDY

A pilot study is one of the fundamental stages of a research project that relates to a feasibility study to test research protocols and data collection instruments, and to sample recruitment strategies and other research techniques in preparation for a larger study (Hassan, Schattner & Mazza, 2006:70). According to Polit, Beck and Hungler (2001:467), a pilot study may also mean conducting a small-scale study to pre-test a particular research instrument prior to rolling out the main study. Although conducting a pilot study does not guarantee the success of the main study, the procedure has the advantage that it gives advance warning about where the main research project could fail (Polit, Beck & Hungler, 2001:467). It could show that a failure could result from the research protocol, or that proposed methods or instruments are inappropriate or too complicated.

A pilot test was conducted to develop a scale for measuring social entrepreneurial intention. An EFA test was conducted on a pool of 32 items that contained facets of the terms “social entrepreneur” and “social enterprise”. The scale was piloted using a sample of university

students in South Africa (N=95). Initially, the factorability of the 32 items was examined. The Kaiser-Meyer-Olkin measure of sampling adequacy was .85, which was above the commonly recommended value of .6. The Bartlett's test of sphericity was significant ($\chi 2 = 2162.17$, $p < .01$). Figure 5.7 shows the results of the exploratory factors analysis using a Scree plot.

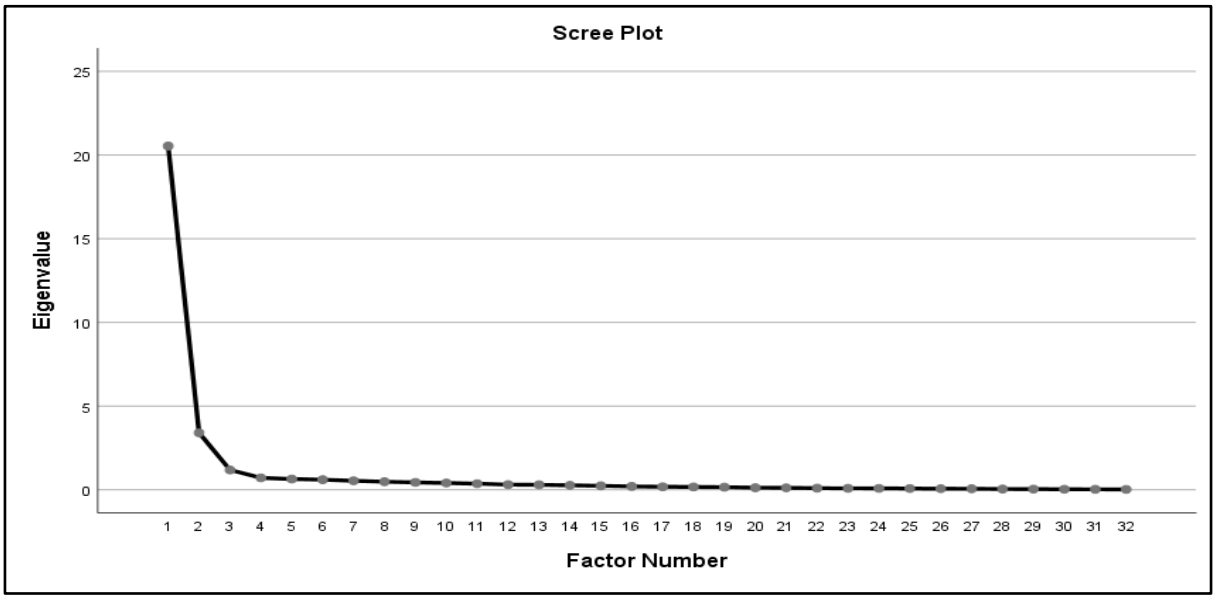

Figure 5.7: Pilot test Scree plot

As depicted in Figure 5.7, it is possible to obtain as many factors with associated eigenvalues in a factor analysis. For that reason, a Scree test is used to plot each eigenvalue on a graph to determine the cut-off point for selecting the number of factors to be retained for further analysis (Cattell, 1966:245). According to Field (2009:639), the cut-off point for retaining factors should be the point where the graph makes an inflexion. In this case, this happens at the point after the second factor.

Although the Scree test was useful for identifying the number of factors to be returned, the target for this analysis was to find a one-factor structure of a social entrepreneurial intention scale. Alternatively, Malhotra (2010:643) recommends extracting factors based on the eigenvalue rule of retaining factors with loadings that are greater than .70. Therefore, to reduce the number of items in the proposed social entrepreneurial intention scale and achieve a high factorial validity of the scale (Costello & Osborne, 2005; Velicer & Fava, 1998), the researcher removed items with factor crossloadings and item communalities below .70. Furthermore, the researcher selected items that were closest to the key definitions of "social enterprise" and

"social entrepreneur". Consequently, the six best items were selected and EFA was re-run with the selected items. A Scree plot revealed a distinct one-factor structure that explained a total variance of 62.66 percent. Table 5.3 provides a summary of the final factor structure of the social entrepreneurial intention scale that was included in the study for further analysis.

Table 5.3: Social entrepreneurial intentions scale

Item	Description	Factor loadings
V8	…addresses social problems that have not been solved so far.	.804
V10	…has a social mission (e.g. reducing poverty, improving education, helping disadvantaged people).	.722
V11	…combines a social mission and an elaborated income strategy.	.787
V12	…acts innovatively to solve problems in society.	.748
V13	…is persistently looking for new opportunities and resources to fulfil its social mission.	.802
V14	…needs to deal with tensions arising from social and financial goals.	.709

Additionally, a pilot test was conducted on the questionnaire to examine its reliability for use in the main survey. As discussed in Chapter 4 (Section 4.10), a commonly used measure for reliability, Cronbach's alpha coefficient, was used to examine the internal consistency of the questionnaire. The test was conducted using a small sample of university students in the Gauteng region, South Africa (N=95). According to Malhotra (2010:319), a measuring instrument is deemed reliable when the coefficient alpha is above 0.6. The reliability test for the questionnaire yielded an alpha coefficient of α=0.77, which demonstrated satisfactory reliability of the questionnaire.

5.4 CONFIRMATORY FACTOR ANALYSIS

In order to confirm EFA results, CFA was conducted on Section 2 of the questionnaire based on a sample of university students in South Africa (N=514). The factorability of the six items was also checked and both parameters indicated that factor analysis was suitable. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO=.90. Bartlett's test of sphericity χ^2=1701.49, p<.01, indicated that correlations between items were sufficiently large for PCA. A PCA was also conducted on the six items measuring social entrepreneurial

intentions. The Scree plot showed inflexions that would justify retaining one factor. Figure 5.8 illustrates the results on a Scree plot based on the sample data of university students in South Africa.

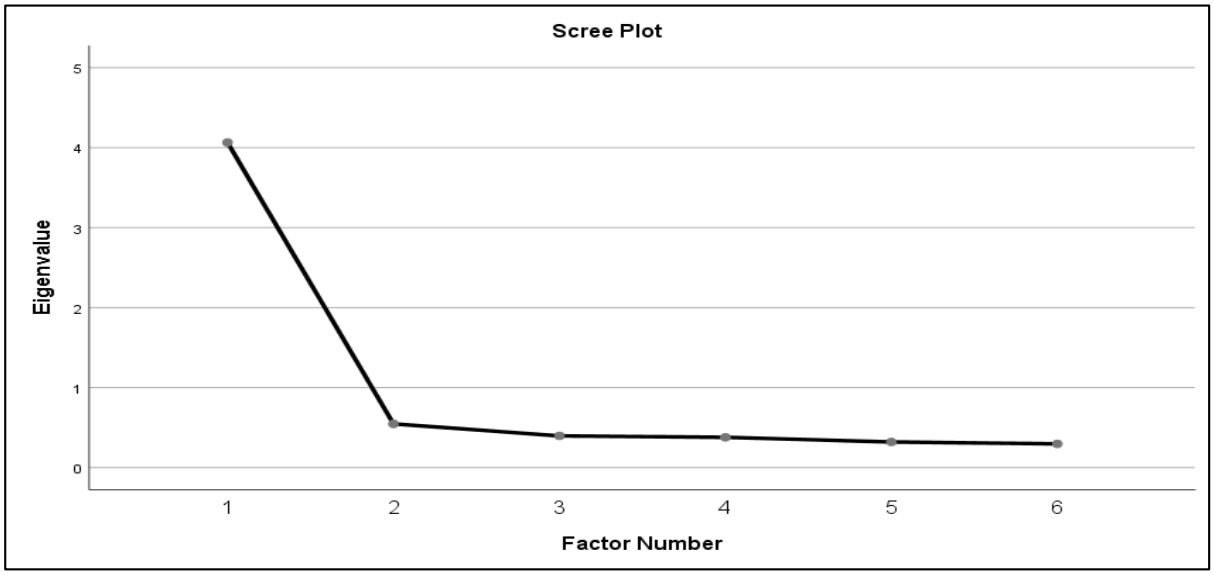

Figure 5.8: CFA Scree plot

Similarly, PCA was run to obtain eigenvalues for each component in the data from the South African sample. The analysis confirmed the presence of one component with an eigenvalue above 1, which explains 66.91 percent of variance. Given the large sample size (N=514) and the convergence of the Scree plot and Kaiser's criterion, the component was retained in the final analysis. Table 5.4 illustrates a description of the retained component based on the eigenvalue rule.

Table 5.4: Social entrepreneurial intent factor loading matrix

Item no:	Item description	Factor loadings
V8	…addresses social problems that have not been solved so far.	.828
V10	…has a social mission (e.g. reducing poverty, improving education, helping disadvantaged people).	.821
V11	…combines a social mission and an elaborated income strategy.	.820
V12	…acts innovatively to solve problems in society.	.835
V13	…is persistently looking for new opportunities and resources to fulfil its social mission.	.826
V14	…needs to deal with tensions arising from social and financial goals.	.777

The CFA test was repeated on a sample of university students from Germany (N=190). The factorability of the six items was also checked and both parameters indicated that factor analysis was suitable. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .91. Bartlett's test of sphericity $\chi^2 = 850.98$, $p < .01$, indicated that correlations between items were also sufficiently large for principle component analysis (PCA). PCA was conducted on the six items measuring social entrepreneurial intentions. An inspection of the Scree plot yielded a distinct one-factor solution, explaining 73.69 percent of variance. Figure 5.9 illustrates the resulting Scree plot.

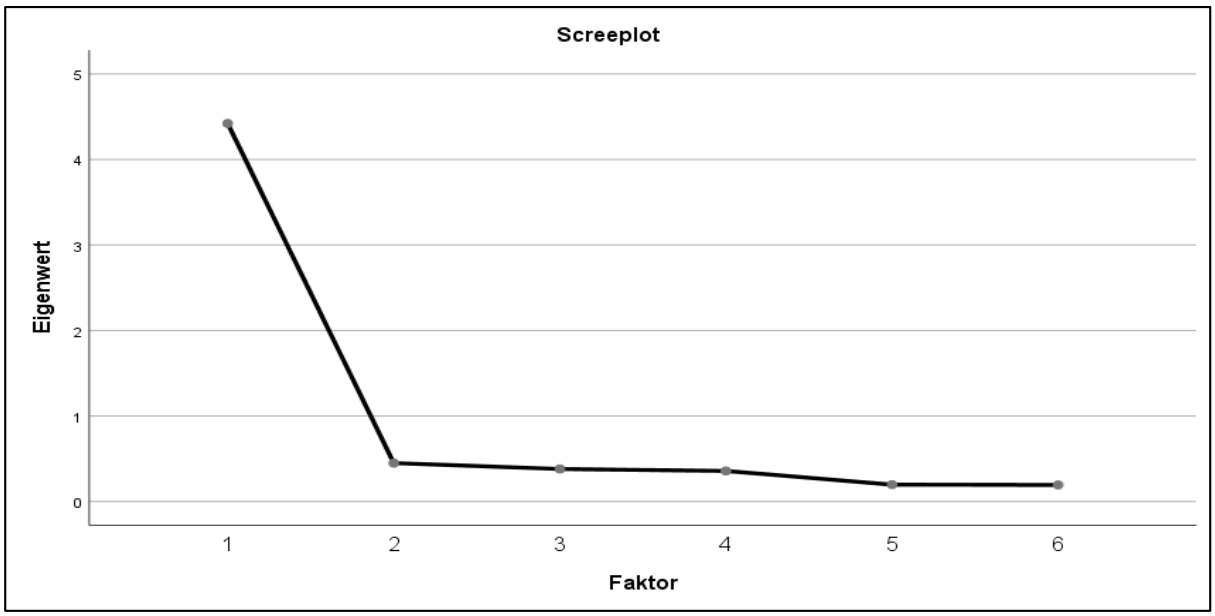

Figure 5.9: CFA Scree plot

PCA also confirmed the robustness of the social entrepreneurial intention scale, showing a structure with eigenvalues ranging between .80 and .91. A summary of the item loadings for the sample data from the German participants is displayed in Table 5.5.

Table 5.5: Social entrepreneurial intent factor loading matrix

Item no:	Item description	Factor loadings
V8	…addresses social problems that have not been solved so far.	.842
V10	…has a social mission (e.g. reducing poverty, improving education, helping disadvantaged people).	.898
V11	…combines a social mission and an elaborated income strategy.	.848
V12	…acts innovatively to solve problems in society.	.850
V13	…is persistently looking for new opportunities and resources to fulfil its social mission.	.908
V14	…needs to deal with tensions arising from social and financial goals.	.801

5.5 STRUCTURAL EQUATION MODELLING

SEM was performed on data from university students in South Africa (N=514). The statistical package Amos (Version 25) was used to examine the six items measuring social entrepreneurial intention. The hypothesised model appeared to be a good fit for the data based on fit indices by Hu and Bentler (1999:1; Hooper, Coughlan & Mullen, 2008:53). The CFI = .98; TLI = .97; RMSEA [90% CI] = .09 [.06; .11]; SRMR = .03. The model was significant with a Chi-square value, χ^2 [9] = 44.75 and *p*-value, $p < .01$. The results for the SEM are graphically displayed in Figure 5.10.

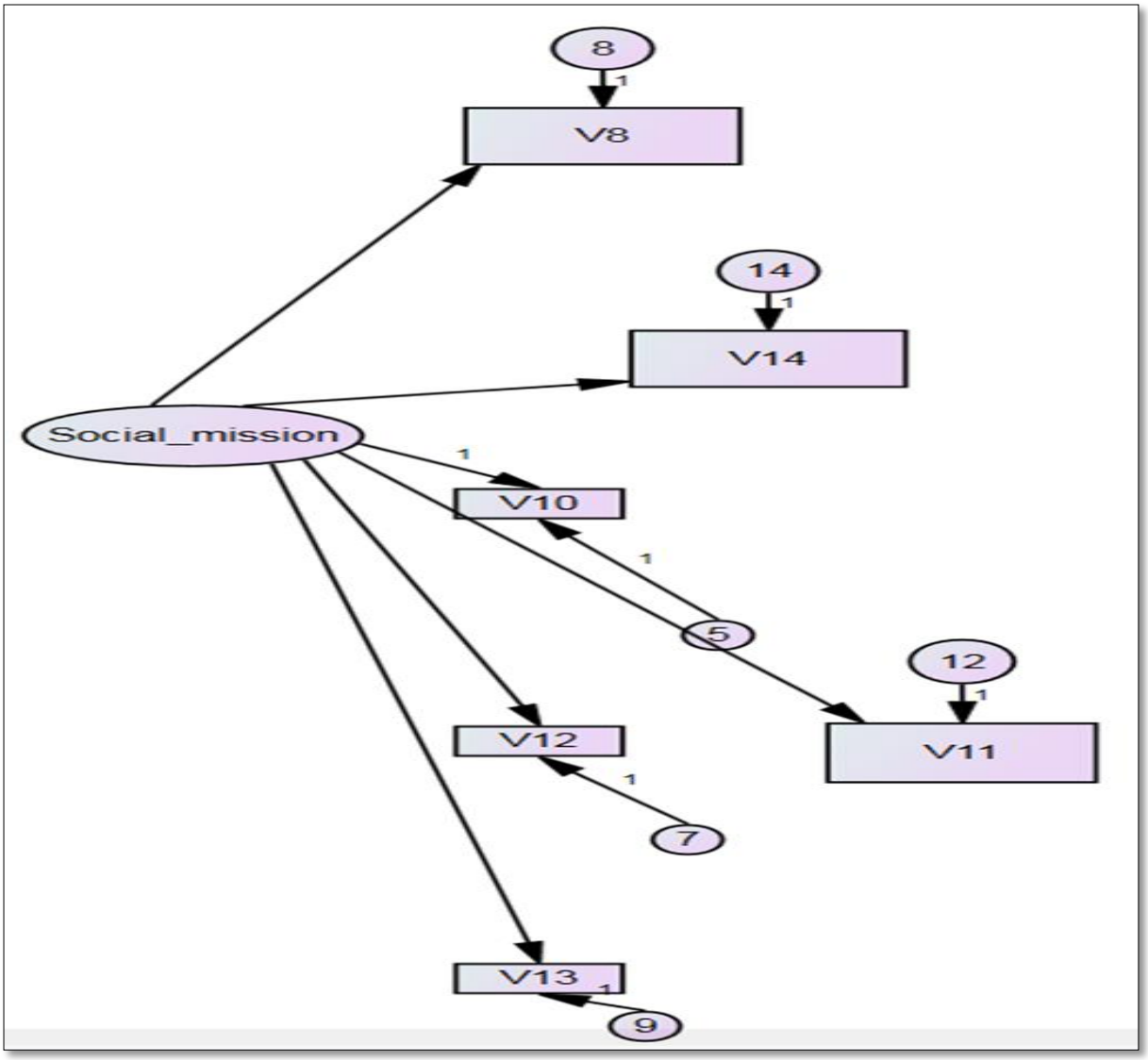

Figure 5-10: SEM output path diagram

SEM was also applied using data from university students in Germany (N=190). Despite a slightly higher RMSEA [90% CI] value (.11 [.07; .15]), the results also indicated an overall good fit of the model (*CFI* = .98; *TLI* = .96; *SRMR* = .02). The model was significant at a Chi-square value, of χ^2-value (χ^2 [9] = 28.07; and *p*-value of $p < .01$). The resulting output path diagram based on the data from the German participants is illustrated in Figure 5.11.

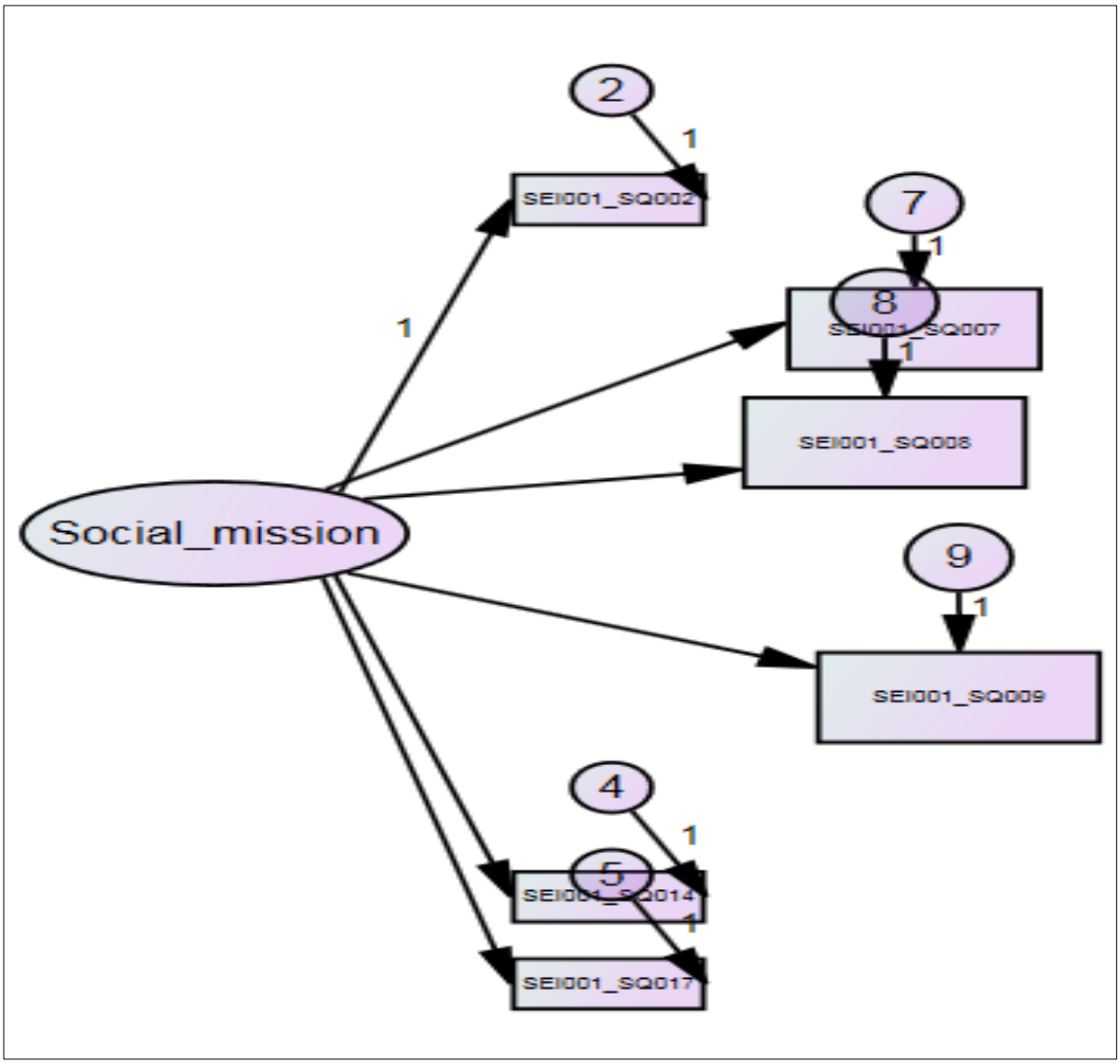

Figure 5.11: SEM output path diagram

Factor analyses and structural equation modelling results were consistent in both samples. These results further support the finding that social entrepreneurial intentions scale is a valid measure for SE intentions.

5.6 RELIABILITY ANALYSIS

The reliability test was conducted to examine the internal consistency of the questionnaire. The test was conducted using the samples of university students in both South Africa (N=514) and Germany (N=190). The results showed that the scales used to measure antecedents to SE intentions were reliable with an overall Cronbach's alpha value $\alpha = .74$. The reliability results for each scale were reliable and are discussed below.

5.6.1 Social entrepreneurial intentions

Social entrepreneurial intentions were measured with the adapted EIQ by Liñán and Chen (2009:593). The scale measures entrepreneurial intentions based on three subscales, including attitudes towards entrepreneurship, subjective norms and perceived behavioural control. By definition, *Attitude towards SE* entails the subjective evaluation of a career as a social entrepreneur. The scale was measured using five items on a 7-point Likert scale that ranged from 1 ("strongly disagree") to 7 ("strongly agree"). An example item was, "*A career as a social entrepreneur is attractive for me"*. The scale was reliable, with Cronbach's alpha coefficient values of α_{ZA} = .88 and α_{GER} = .90

Subjective norm measures the social pressure of considering other people's needs and/or their influence when making the decision to found a social enterprise. The scale was measured using four items on a 7-point Likert scale that ranged from 1 ("not at all") to 7 ("very much"). An example statement was, "*If you decided to create a social enterprise, would people in your close environment approve of that decision? – Your friends"*. The scale was reliable with Cronbach's alpha coefficient values of α_{ZA} = .82; α_{GER} = .81.

Perceived behavioural control could also be described as the extent to which a person believes he/she is capable of founding and running a social enterprise. The scale was measured by five items on a 7-point Likert scale that ranged from 1 ("strongly disagree") to 7 ("strongly agree"). An example item was "*I know the necessary practical details to start a social enterprise".* The scale was reliable, with Cronbach's alpha coefficient values of α_{ZA} = .90; α_{GER} = .91.

The unweighted mean of all three subscales was also included as a general measure for *social entrepreneurial intention.* The scale was reliable, with Cronbach's alpha coefficient values of α_{ZA} = .90; α_{GER} =.89. In order to ensure the suitable adaptation of the scale, which was originally developed to measure general entrepreneurial intention, a summary of the key elements of social enterprises and the role of a social entrepreneur was included in the questionnaire. Survey participants were informed on the concepts before filling in the EIQ. The researcher also reformulated all items in the scale to suit the language of the intended participants and clarified that the scale was to measure social and not general entrepreneurial intention.

5.6.2 Social entrepreneurial antecedents

Perceived SE-desirability, i.e. the attractiveness of pursuing a career as a social entrepreneur and *Perceived SE-feasibility*, i.e. the conviction that one has the required resources and capabilities to found a social enterprise were measured using the SEAS by Hockerts (2015). Both measures were tested on a 5-point Likert scale that ranged from 1 ("strongly disagree") to 5 ("strongly agree"). *Perceived SE-desirability* contained ten items, such as, *"I feel compassion for socially marginalised people"*. The scale was reliable and Cronbach's alpha coefficient values for both samples were $\alpha_{ZA} = .70$ and $\alpha_{GER} = .80$. On the other hand, *Perceived SE-feasibility* was measured with eight items, for example, "*I could figure out a way to help solve the problems that society faces"*. The scale was also reliable and Cronbach's *α* was $\alpha_{ZA} = .72$; $\alpha_{GER} = .84$.

5.6.3 Proactive personality

Proactive personality, i.e. the tendency to be active and affect one's environment, was measured using five items adapted from Proactive Personality Scale (Bateman & Crant, 1993:103). The items were measured on a 7-point Likert scale that ranged from 1 ("strongly disagree") to 7 ("strongly agree") and included statements such as, "*I can spot a good opportunity long before others can"*. The scale was reliable, with a Cronbach's *α* was $\alpha_{ZA} = .83$; $\alpha_{GER} = .88$.

5.6.4 Domain-specific risk-taking

Risk-taking was measured using two subscales, namely *Ethical risk* and *Investment risk*. The scales were adapted from the Domain-specific Risk-taking (Adult) Scale by Blais and Weber (2006:33) and were measured on a 7-point Likert scale ranging from 1 ("extremely unlikely") to 7 ("extremely likely"). *Ethical risk*, also described as the preparedness of a person to take risks in moral domains, was measured with six items such as, *Not returning a wallet you found that contains $200*. The scale was reliable on both samples and Cronbach's alpha was $\alpha_{ZA} = .73$; $\alpha_{GER} = .66$. *Investment risk-taking*, i.e. the preparedness of a person to take risks in financial domains, contained three items with an example statement being, *"Investing 10 percent of your annual income in a new business venture".* The scale was reliable ($\alpha_{ZA} = .75$; $\alpha_{GER} = .72$).

5.6.5 Self-report altruism

Altruism, i.e. the tendency to generously and kindly help others, was measured using a six-item scale adapted from the Self-report Altruism Scale by Rushton *et al.* (1981:293). The scale was measured on a 5-point Likert scale ranging from 1 ("never") to 5 ("very often"). An example item was "*I have done volunteer work for a charity"*. The scale was reliable, with a Cronbach's alpha of $\alpha_{ZA} = .71$; $\alpha_{GER} = .66$.

5.6.6 Entrepreneurial intention

The General Entrepreneurial Intentions Scale by Liñán and Chen (2009:593) was included in the questionnaire to account for discriminant/divergent validity. As discussed in Chapter 4 (Section 4.11.3), divergent validity tests whether concepts that are not supposed to be related are actually unrelated. The aim of this inclusion was to examine if the newly developed social entrepreneurial intention scale truly measures what it intended to measure, which, in turn, would be discriminant to the *commercial entrepreneurial intentions* scale. Accordingly, commercial entrepreneurial intentions was measured on a 7-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). Participants rated statements such as, *"I will make every effort to start and run my own commercial enterprise".* The scale was reliable, with a Cronbach's alpha of $\alpha_{ZA} = .96$; $\alpha_{GER} = .97$.

5.6.7 Criterion validity

Criterion validity, in other words knowledge about the concept of SE and self-initiated actions in the field of SE, was rated using a 7-point Likert scale ranging from 1 ("not at all") to 7 ("very much"). The items were self-constructed by the researcher. As to the best of the researcher's knowledge, no previously published measures for such a construct exist in the literature. Three items were used to test social entrepreneurial knowledge, for example, "*I had been familiar with the term 'social entrepreneur' before participating in this study"*. The scale was reliable, with a Cronbach's alpha of $\alpha_{ZA} = .77$; $\alpha_{GER} = .73$. Social entrepreneurial action was rated on a five-item scale, with items such as *"I have invested time and effort to inform myself about a career as a social entrepreneur"*. The scale was reliable, with a Cronbach's alpha of $\alpha_{ZA} = .89$; $\alpha_{GER} = .87$.

5.7 CORRELATION ANALYSIS

A correlation analysis was conducted to examine the relationships between social entrepreneurial intention scale and the antecedents to social entrepreneurial intentions as proposed in the third empirical objective. More specifically, tests were conducted to ascertain the validity of the newly developed social entrepreneurial intention scale and existing antecedents to social entrepreneurial intentions. The Pearson correlation coefficient (r) test was conducted to examine the relationship between *Social entrepreneurial intention* and *Attitude towards SE, Social norms, Social entrepreneurial perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality, Altruism, Commercial entrepreneurial intention, Social entrepreneurial knowledge* and *Social entrepreneurial action.* The results of the analysis are consistent with reliable estimates (Bosco *et al.*, 205:431).

Regarding convergent validity, positive correlations were found among all scales except for ethical risk-taking. The highest correlations were found for *Attitude towards* SE (r=.53, p< .01), *SE perceived behavioural control* (r=.46, p< .01), *Perceived social entrepreneurial feasibility* (r= .45, p< .01) and *Perceived social entrepreneurial desirability* (r = .52, p < .01). These results were in line with those of previous studies on social entrepreneurial intention and matched some of the theoretical considerations. For example, in a study that examined the influence of cultural dimensions on the determinants of social entrepreneurial intentions among university students from China and United States of America, Yang *et al*. (2015:262) found positive correlations between social entrepreneurial intentions and attitudes towards SE (r=.29); as well as perceived behavioural control (r=.54). Similarly, Chipeta, Surujlal and Koloba (2016:6890) found that attitudes towards entrepreneurship (r=.68) and perceived behavioural control (r=.27) positively correlated with social entrepreneurial intentions in a study that examined the influence of gender and age on SE intentions among university students in Gauteng, South Africa. Still more, Forster and Grichnik (2013:153) found that social entrepreneurial intentions positively correlated with subjective norms (r=.57) and perceived feasibility (r=.65) in a study that aimed to identify antecedents to social entrepreneurial intention formation among corporate volunteers of Deutsche Post DHL situated in Panama, Dubai and Singapore. A correlation coefficient for proactive personality was slightly lower compared to previous studies (Prabhu *et al.*, 2017:330; Prieto, 2011:10). However, given the relatively low number of studies investigating the relationship between

proactive personality and social entrepreneurial intention, the results of this study can be considered similar to previous research.

Correlation analysis was also used to examine divergent validity by examining the correlation between the newly developed social entrepreneurial intention scale and the commercial entrepreneurial intention scale (Liñán & Chen 2009:593). The results indicated an extremely low correlation between the social entrepreneurial intention scale and the commercial entrepreneurial intention. These results indicate that the social entrepreneurial intentions scale was indeed measuring what it was supposed to be measuring, which was very distinct from what the commercial entrepreneurial intentions scale was measuring. The correlation coefficient between the two measurement scales was r=.01, an indication of a low to almost no correlation.

An investigating of criterion validity indicated that both social entrepreneurial knowledge (r= .18, $p < .05$) and social entrepreneurial action ($r = .20$, $p < .01$) were significant and positively correlated with the newly developed social entrepreneurial intention scale. Ethical risk-taking, investment risk-taking and altruism have, to the researcher's knowledge, not been empirically linked to social entrepreneurial intention. The correlations were in the expected directions. For example, between statements examining ethical risk such as, "*Taking some questionable deductions on your income tax return"* or "*Passing off somebody else's work as your own"*. Negative responses were expected from these statements if the participants were passionate about engaging in a social entrepreneurial activity. Table 5.6 shows the means, standard deviations and intercorrelations of all scales for South Africa (N = 514) and Germany (N = 190).

Table 5.6: Means, standard deviations and intercorrelations of all scales for both samples (N = 514; N = 190)

Scale	Mean (SD) ZA	Mean (SD) GER	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ATT	4.45 (1.39)	4.59 (1.55)	-	.36**	.46**	.85**	.45**	.52**	-.05	.23**	.22**	.32**	.01	.22**	.28**	.53**
2. SN	5.20 (1.23)	5.30 (1.56)	.45**	-	.20**	.62**	.42**	.34**	-.04	.16*	.16*	.09	.02	.18*	.08	.16*
3. PBC	3.53 (1.33)	2.76 (1.38)	.54**	.31**	-	.76**	.40**	.19**	.03	.31**	.48**	.34**	.40**	.39**	.54**	.36**
4. LCS	4.28 (1.06)	4.22 (1.01)	.85**	.66**	.84**	-	.56**	.47**	-.02	.31**	.39**	.35**	.19**	.35**	.42**	.49**
5. SEF	3.73 (.55)	3.72 (.67)	.32**	.34**	.26**	.38**	-	.46**	-.04	.28**	.36**	.19*	.06	.22	.10	.38**
6. SED	3.77 (.54)	3.72 (.60)	.33**	.25**	.14**	.29**	.46**	-	-.14	.04	.10	.33**	-,09	.09	.12	.39**
7. ERT	2.32 (1.08)	2.16 (.89)	-.02	-.05	.08	.02	-.14**	-.22**	-	.25**	-.02	-.08	.15*	.15*	.17*	-.04
8. IRT	4.58 (1.38)	2.78 (1.35)	.21**	.09	.20**	,22**	.24**	.13**	.11*	-	.32**	.25**	.41**	.31**	.20**	.23**
9. PP	5.09 (1.06)	4.51 (1.05)	.30**	.25**	.38**	.40**	.39**	.24**	-.05	.28**	-	.29**	.30**	.27**	.27**	.21**
10. ALT	3.49 (.71)	3.08 (.70)	.19**	.17**	.25**	.26**	.26**	.30**	-.13**	.13**	.25**	-	.10	.47**	.44**	.25**
11. CEI	4.39 (1.76)	2.15 (1.46)	.36**	.23**	.44**	.45**	.20**	.11*	.12**	.31**	.37**	.14**	-	.19*	.32**	.02
12. SEK	3.24 (1.61)	3.03 (1.59)	.28**	.12**	.44**	.38**	.17**	.08	.02	.16**	.30**	.30**	.36**	-	.54**	.18*
13. SEA	2.53 (1.47)	1.68 (1.17)	.34**	.18**	.51**	.46**	.07	.04	.09*	.10*	.27**	.24**	.32**	.62**	-	.20**
14. SEI	5.30 (1.21)	4.02 (1.66)	.36**	.18**	.25**	.34**	.35**	.38**	-.09*	.14**	.28**	.20**	.16**	.10*	.11**	-

Note.: ATT: Attitude towards SE; SN = Subjective norms; PBC = Perceived behavioural control; LCS = SE intention measured by the adapted scale by Liñán and Chen (2009:593); SEF = SE feasibility; SED = SE desirability; ERT = Ethical risk-taking; IRT = Investment risk-taking; PP = Proactive personality; ALT = Altruism; CEI = Commercial entrepreneurial intention; SEK = SE-knowledge; SEA = SE-action; SEI = SE intention measured by our newly developed scale; SD = Standard deviation. Correlations for Sample 2 are presented below the diagonal, correlations for Sample 3 are presented above the diagonal.
* $p < .05$; ** $p < .01$.

5.8 REGRESSION ANALYSIS

Hierarchical multiple regression analysis was run to examine the relationship among antecedents to social entrepreneurial intentions: *Attitude towards entrepreneurship, Social norms, Perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality* and *Altruism* against the dependent variable *Social entrepreneurial intention* after controlling Age, Gender and Level of education. The first part of the SPSS is a summary of the model. There were five regression models that examined the relationship. The regression analysis generally support all the five Hypotheses. The results of R, R^2 and adjusted R^2 are as shown in Table 5.7 of the model summary.

Table 5.7: Regression model summary

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F change
1	.140[a]	.020	.014	7.19467	.020	3.398	3	509	.018
2	.392[b]	.153	.143	6.70551	.134	26.657	3	506	.000
3	.455[c]	.207	.194	6.50280	.054	17.020	2	504	.000
4	.469[d]	.220	.206	6.45448	.013	8.573	1	503	.004
5	.476[e]	.227	.208	6.44574	.007	1.455	3	500	.226
a. Predictors: (Constant), Education, Gender, Age									
b. Predictors: (Constant), Education, Gender, Age, SE Social norms, SE Perceived behavioural control, SE Attitude towards behaviour									
c. Predictors: (Constant), Education, Gender, Age, SE Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE Perceived desirability, SE Perceived feasibility									
d. Predictors: (Constant), Education, Gender, Age, SE Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE Perceived desirability, SE Perceived feasibility, Proactive personality									
e. Predictors: (Constant), Education, Gender, Age, SE Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE Perceived desirability, SE Perceived feasibility, Proactive personality, Ethical risk-taking, Investment risk, Self-report altruism									

Model 1 with three predictor variables of *Age, Gender* and *Level of education*, R has a value of .140, which represents a positive correlation between the demographic variables of *Gender, Age* and *Level of education* and *Social entrepreneurial intention*. The value R^2 is .020, which entails that the demographic variables account for two percent of the variation in determining social entrepreneurial intentions. The value for adjusted R^2 is .014, showing a slight decrease of 0.6 percent (.020-.014). This means that the model would have accounted for 0.6 percent less of the variance if the model was derived from the population rather than the sample.

Model 2 with six predictor variables (*Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour*) was an improvement of Model 1. The R-value increased to .392, indicating a positive correlation between the predictor variables and social entrepreneurial intention. R^2 increased to .153, which accounts for 15.3 percent of the variation in determining social entrepreneurial intentions. Although the value for adjusted R^2 increased from 0.014 to .143, there was a 1 percent (0.153-0.143) decrease from the R^2 to the adjusted R^2. This decrease meant that the model would account for approximately 1 percent less variance in the outcome if the model were derived from the population rather than the sample.

Model 3 was also supported. Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour SE Perceived desirability, SE Perceived feasibility had significant predictive power for social entrepreneurial intention among Generation Y university students in South Africa. The R-value increased to .455. R^2 also increased to .207, indicating the model accounted for 20.7 percent of the variation on social entrepreneurial intention. The adjusted R^2 also increased from to .143 to .194. There was a 1.3 percent (0.207-0.194) decrease from the R^2 and the adjusted R^2. This decrease meant that the model would account for approximately 1.3 percent less variance in the outcome if the model were derived from the population rather than the sample.

Furthermore, Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE Perceived desirability, SE Perceived feasibility, and Proactive personality were included as Model 4. R increased from .455 to .469, R^2 increased from .207 to .220. Thus, the model accounted for 22 percent of the variance in determining social entrepreneurial intention. Adjusted R^2 also increased from .194 to .206. There was a 1.3 percent (0.220-0.206) decrease between R^2 and the adjusted R^2. Likewise, the

decrease meant that the model would account for approximately 1.4 percent less variance in the outcome if the model were derived from the population rather than the sample.

Finally, Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour SE Perceived desirability, SE Perceived feasibility, Proactive personality, Ethical risk-taking, Investment risk, and Self-report altruism were included as predictor variables in Model 5. The R-value increased from .469 to .476, R^2 increased from .220 to .227 and the adjusted R^2 also increased from .206 to .208. It can be noted that the change in R^2 was lower compared to the other models. These results indicate that there is not much increase in the predictive power of Ethical risk-taking, Investment risk, and Self-report altruism in determining social entrepreneurial intentions among Generation Y university students in South Africa.

The next part of the SPSS output contains the Analysis of Variance (ANOVA) results. ANOVA tests how each of the models predict the outcome. A discussion of how these findings relate to those in previous studies are also presented. Table 5.8 provides a summary of the ANOVA output.

Table 5.8: ANOVA

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	527.717	3	175.906	3.398	.018[b]
	Residual	26347.503	509	51.763		
	Total	26875.220	512			
2	Regression	4123.493	6	687.249	15.284	.000[c]
	Residual	22751.727	506	44.964		
	Total	26875.220	512			
3	Regression	5562.890	8	695.361	16.444	.000[d]
	Residual	21312.330	504	42.286		
	Total	26875.220	512			
4	Regression	5920.059	9	657.784	15.789	.000[e]
	Residual	20955.161	503	41.660		
	Total	26875.220	512			
5	Regression	6101.448	12	508.454	12.238	.000[f]
	Residual	20773.772	500	41.548		
	Total	26875.220	512			
a. Dependent variable: Social entrepreneurial intention						
b. Predictors: (Constant), Education, Gender, Age						
c. Predictors: (Constant), Education, Gender, Age, SE SNorms, SE PBControl, SE ATBehaviour						
d. Predictors: (Constant), Education, Gender, Age, SE SNorms, SE PBControl, SE ATBehaviour, SE Perceived desirability, SE Perceived feasibility						
e. Predictors: (Constant), Education, Gender, Age, SE SNorms, SE PBControl, SE ATBehaviour, SE Perceived desirability, SE Perceived feasibility, Proactive personality						
f. Predictors: (Constant), Education, Gender, Age, SE SNorms, SE PBControl, SE ATBehaviour, SE Perceived desirability, SE Perceived feasibility, Proactive personality, Ethical risk-taking, Investment risk, Self-report altruism						

The ANOVA results in Table 5.8 show the level of significance of each of the five models. All five models were statistically significant. Model 1 was significant at $p < .05$ indicating a positive relationship between age, gender and level of education on social entrepreneurial intentions among Generation Y university students in South Africa. Previous studies have tested the influence of demographic variables on behavioural intentions such as social

entrepreneurial intentions. Although some studies criticise the approach due to their methodological and conceptual limitations (Santos & Linan, 2007:87; Gartner, 1989:27; Ajzen 1991:179), the results for this study indicate that social demographic variables can influence entrepreneurial intentions. These results are in line with some previous findings. For example, in a study that investigates the role of gender variable in determining entrepreneurial behaviour using data from the Global Entrepreneurship Monitors data from 37 countries, Minniti and Nardone (2007:223) found that gender differences have no particular influence in determining entrepreneurship. Both males and females have the desire to start a business. Similar findings are noted in the study by Meyer and Landsberg (2015:3857) which investigates the factors that motivate females to start a business among 66 females in South Africa. They found that women have a general desire to engage in entrepreneurship as a result of job loss or retrenchment and the opportunity to start a business. In another study that investigates the influence of gender and age on social entrepreneurial intentions among university students in Gauteng, Chipeta *et al.* (2016:6895) found significant differences between age groups and social entrepreneurial intentions. Post_hoc comparison test indicated that the mean scores for groups between the ages 18-24 was significantly different from those aged between 27 and 30. The results revealed that older people were identified as the mostly likely group to engage in social entrepreneurial activity compared to the younger cohort. In an earlier study, Kim (2007:398) investigated the incidence of self-employment over a person's life-cycle across different groups. It was noted that the probability of self-employment increases with age and education level and is higher for men, whites and married women than among other groups. These findings suggest that the demographics of a society play a vital role in determining social entrepreneurial intentions.

Similarly, the regression models 2, 3, 4 and 5 were significant at $p < .001$. The *F*-value for Model 3 (*Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE Perceived desirability, SE Perceived feasibility*) was the largest *F*-value; which indicates the overall predictive effect for the amount of change experienced when adding an additional variable. The findings confirm a positive significant relationship between *social entrepreneurial intention* scale and antecedents to social entrepreneurship, namely *Attitude towards entrepreneurship, Social norms, Perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality* and *Altruism*. These results support the theory that *social entrepreneurial intention* is an antecedent of SE intentions.

Additionally, the results for this study are in line with many previous findings in the literature. For example, a study that investigated the causes of entrepreneurial intent among engineering students at MIT, Lüthje and Franke (2003:143) found that attitudes towards entrepreneurship contribute the strongest in explaining entrepreneurial intentions. Similarly, in a study that applied the theory of planned behaviour to investigate entrepreneurial intentions among students in Scandinavia, United States, Autio *et al.* (2001:145) found attitude towards entrepreneurship and perceived behavioural control as having the most important positive influence on entrepreneurial intentions. Furthermore, a recent study that aimed at developing and validating a scale to measure social entrepreneurial intentions Hockerts (2015:274) found that perceived feasibility and perceived desirability are significant predictors to SE. Therefore, these findings provide support for the usability of the newly developed social entrepreneurial intentions scale as a measure of SE intentions.

5.9 CONCLUSION

The objective of this chapter was to report on the results of the study. The analyses and interpretation of the results were presented in line with the stated empirical objectives. The chapter began with a discussion on the demographic characteristics of the survey participants. The outcome on the demographic profile included information on age, gender, nationality, ethnic race and level of education. The survey was participated by both males and females that are aged between 18 and 35 from a selection of public universities in South Africa and one university in Germany. Participation in terms of level of education included students from 1st year to PhD as well as those from all race groups, such as White, Black, Chinese, Coloured and Indians.

The second part of the chapter discussed the pilot results and the study's main findings. The pilot results revealed the suitability of the questionnaire to be used in the main analysis. The test for reliability of the questionnaire yielded an alpha coefficient of α=.77. A pilot test was also used to develop and validate a scale to measure social entrepreneurial intentions. A six item scale was derived from 32 items that contained facets of the terms social entrepreneur and social enterprise. EFA was conducted to explore the factor structure of the proposed social entrepreneurial intention scale. A distinct one-factor structure based on a Scree plot explaining 62.66 percent of variance was extracted. CFA was also applied to investigate the robustness of the social entrepreneurial intention scale. The corresponding Scree plots yielded a distinct one-

factor structure, explaining 66.91 percent of variance in the South African sample and 73.69 percent in the German sample. Similarly, SEM was employed to investigate the overall fit of the model parameters. Significant results were found that indicate that the social entrepreneurial intention scale is an antecedent of social entrepreneurial intentions among Generation Y university students in South Africa.

The chapter continued to report on the findings for the main survey. Correlation analysis and regression analysis tests were performed to further assess the relationship among antecedents to social entrepreneurial intentions. Pearson correlation coefficient (r) test was conducted to examine the relationship between *Social entrepreneurial intention* and *Attitude towards SE, Social norms, Social entrepreneurial perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality, Altruism, Commercial entrepreneurial intention, Social entrepreneurial knowledge* and *Social entrepreneurial action.* The highest correlations were found for *Attitude towards* SE (r=.53, p< .01), *SE perceived behavioural control* (r=.46, p< .01), *Perceived social entrepreneurial feasibility* (r= .45, p< .01) and *Perceived social entrepreneurial desirability* (r = .52, p < .01). Overall, the test revealed *social entrepreneurial intention* as a valid measure of SE intentions. Furthermore, these results were supported by the regression results that yielded significant results thereby also supporting the theory that social entrepreneurial intentions is an antecedent of SE intentions. The following and final chapter of this report presents conclusions and recommendations for future research.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

Chapter 5 presented the empirical results of the research on the antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. This chapter provides conclusions and makes recommendation for future studies. It begins with an overview of the study. The chapter continues with a discussion on the theoretical and empirical research objectives of the study. This is followed by recommendations and a discussion of the limitations of the study. Additionally, suggestions for future research are highlighted. The chapter ends with a concluding remarks and reflection on the research journey.

6.2 OVERVIEW OF THE STUDY

As discussed in Chapter 1, the study of SE has attracted the attention of researchers and policy makers worldwide (Defourny & Nyssens, 2010:32). Interest in this field has expanded to various educational institutions and print media. The proliferation of research output is evident from the growing number of publications emerging in the mainstream management and entrepreneurship journals (Lee *et al.,* 2014:241; Short *et al*., 2006:161). However, advancing research on SE is challenged by a lack of consensus on the definition of central concepts (Cukier *et al.*, 2011:99). Researchers argue that the field of study is still underexplored and that more research is needed to establish appropriate methodology, especially in the measurement of social entrepreneurial intentions. Chapter 1 provided the background to the study, presented the problem statement and highlighted the rationale of the study. This was followed by the primary, theoretical and empirical objectives. The discussion then turned to the research design, sampling techniques and data collection procedures. The chapter outlined the statistical methods for data analysis, before pointing out the contributions and ethical considerations of the study.

The primary objective of the study was to investigate the antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. In order to achieve the stated primary objective of the study, the following theoretical objectives were formulated:

Objective 1: To conduct a literature study on entrepreneurship and entrepreneurial intentions;

Objective 2: To conduct a literature study on SE and social entrepreneurial intentions; and

Objective3: To conduct a literature study on antecedents to social entrepreneurial intentions.

Chapter 2 aimed to achieve theoretical objective I of the study. A comprehensive literature study on the concepts entrepreneurship and entrepreneurial intentions was conducted. To ensure a thorough scientific approach to the study of antecedents to social entrepreneurial intentions, the first theoretical objective was to conduct a literature study on entrepreneurship. As Martin and Osberg (2007:30) concur, SE is a term derived from the study of commercial entrepreneurship. Essentially, Durieux and Stebbins (2010:10) contend that social entrepreneurs are actors in the economy that adopt commercial business principles to address a social cause in society. Therefore, a review of relevant literature on the concept of entrepreneur / entrepreneurship aimed to understand its meaning and the general motive for and intentions with engaging in entrepreneurial activity.

The study of entrepreneurship as a scientific field of enquiry has a long history. Early research on the subject emphasised understanding the motives for entrepreneurships. Low and MacMillan (1988:141) observed a lack of proper direction for research in entrepreneurship. They noted that the domain of entrepreneurship literature lacked clarity of purpose, with most research focusing on the occurrence of entrepreneurship or personality characteristics, which left readers wondering what the research output intended to achieve. Central to this lack of consensus in entrepreneurship research was the issue of understanding the boundaries to entrepreneurship. In other words, what it takes to become an entrepreneur or who, why and when entrepreneurs act in a certain way (Landström, 1999:14). According to Audretsch *et al.* (2015:705), entrepreneurship means different things to different people. From the start, various approaches to understanding the motive for establishing an entrepreneurial business evolved. For example, Carland *et al*. (1984:357) were of the view that understanding the motive for entrepreneurship should start with differentiating entrepreneurs from business owners. As Naudé (2013:2) concurs, entrepreneurs possess certain functional roles that distinguish them from business owners. In earlier research, Hébert and Link (1989:40) listed 12 crucial roles that entrepreneurs play in economic theory. This line of thought was the focal point for most

empirical studies on entrepreneurship, such as McClelland's 1961 work on *The achieving society*. Other behavioural scientists studied the role of social development, values and education on entrepreneurship and economic development (Crant, 1996:42; Costa & Mccrae, 1992:653; Gartner, 1989:61; Brockhaus & Horwitz, 1986:25). Current research on the subject proposes an understanding of the intentions framework as the intended motive for new venture creation. The literature review discussed and analysed various intention models found in the extant literature. Among others, the literature highlights Ajzen's TPB as the most cited and applied entrepreneurial intentions model. This study adopted the model to investigate the antecedents to social entrepreneurial intentions among Generation Y university students in Gauteng.

Chapter 3 aimed to achieve theoretical objectives II as set out in Chapter 1. It discussed relevant literature on SE and social entrepreneurial intention. The key issues that emerged from the literature reviewed included understanding the general role of SE and its importance within the South African context. The chapter further highlighted the history of SE research as a scientific field of enquiry. Like commercial entrepreneurship, the study of SE spans several decades. However, unlike commercial entrepreneurship, interest in SE research became more apparent after 1990. Bornstein (1998:34) observed an increase in research output in specific SE journals, conference proceeding and leading journals not particularly linked to SE. Despite the increase in research output, the study of SE as a scientific field of enquiry is still young (Hoogendoorn *et al.,* 2010:1; Short *et al.,* 2009:161). Existing research output is challenged by lack of significant quantitative studies, with the majority of studies focusing on the conceptual understanding of the phenomenon. The lack of clarity on SE definitions is one of the reasons for the delay in the maturity of SE research. Accordingly, to address the issue of understanding the meaning of SE, a literature study was conducted on the existing definitions of "social entrepreneur" and "social enterprise". The literature study focused on understanding the key elements that define the process of SE. A content analysis was used to find integrative definitions of the terms "social entrepreneur" and "social enterprise". The chapter concluded with a discussion on existing entrepreneurial intentions models.

Similarly, the purpose of Chapter 3 was to achieve theoretical objective III. As indicated in the primary objective, the aim of the study was to investigate the antecedents to social entrepreneurial intentions among Generation Y university students in South Africa. Accordingly, the model of social entrepreneurial intention prediction by Mair and Naboa

(2003:8) was adapted as the main theoretical approach to investigate antecedents to social entrepreneurial intentions as discussed in Section 3.6. Furthermore, the chapter presented some research output in the psychological literature that highlights intentions as a predictor of planned behaviour. The chapter also reviews the literature on a number of other constructs that not related to any of the theories of intentional behaviour, but likely to influence a person's likelihood of engaging in SE, namely proactive personality, risk-taking and altruism.

Chapter 4 described the methodology and research design followed to collect and analyse the data for the study. Section 4.3 discussed the research design followed to achieve the objectives of the study. The sampling strategy employed in the study was discussed was discussed in Section 4.5, followed by a discussion on the population, sampling frame, sampling techniques and sample. The process for data collection was outlined and discussed in Section 4.6, which included descriptions of the design, format and layout of the instrument used for data collection. The statistical techniques used to analyse the data were presented in Section 4.9.

Chapter 5 reported on the analysis of the results and the development of a social entrepreneurial intentions scale. The chapter further discussed the findings on the antecedents to social entrepreneurial intentions.

6.3 MAIN FINDINGS OF THE STUDY

In pursuit of the primary objective of this study, several empirical objectives were formulated. The findings are presented as they correspond with each objective.

6.3.1 Objective 1: To develop and validate a scale to measure social entrepreneurial intention among university students in South Africa,

The first empirical objective was to develop and validate a scale to measure social entrepreneurial intention to advance empirical research in the field. The objective was achieved in Sections 5.3, 5.4 and 5.5. The majority of papers on SE are theoretical in nature, calling for more empirical research to advance SE and to allow for the testing of proposed theories and models. As discussed in the literature in Chapter 3, SE is an ill-defined concept. The lack of clarity on this concept had to be addressed to ensure increased and high quality empirical studies. Therefore, the objective was to empirically validate a scale to measure social

entrepreneurial intention based on the central features of the definitions of a "social enterprise" and "social entrepreneur".

EFA was performed to explore the factor structure of the proposed scale that would best suit the definitions of "social entrepreneur" and "social enterprise". The test yielded a distinct one-factor structure based on a Scree plot with six items, explaining 62.66 percent of variance. CFA was applied to investigate the robustness of the social entrepreneurial intention scale. The corresponding Scree plots yielded a distinct one-factor structure explaining 66.91 percent of variance. SEM was applied to investigate the overall fit of the model fit parameters. The results indicate that the social entrepreneurial intention scale is an antecedent of social entrepreneurial intentions among Generation Y university students in South Africa.

6.3.2 Objective 2: To test the validity of the scale among university students in Germany

The second empirical objective was to test the validity of the newly developed social entrepreneurial intention scale among university students in Germany. The objective was achieved in sections 5.4 and 5.5 of this study. CFA was applied to investigate the robustness of the social entrepreneurial intention scale. The corresponding Scree plots yielded a distinct one-factor structure explaining 73.69 percent of variance. Similarly, SEM was applied to investigate the overall fit of the model fit parameters and the results. The test yielded similar results as in the South African sample thereby confirming validity of the scale.

6.3.3 Objective 3: To determine the relationship between social entrepreneurial intention scale and antecedents to social entrepreneurial intentions

The relationship between social entrepreneurial intention scale and antecedents to social entrepreneurial intentions was determined through a correlation analysis. The objective was achieved in Section 5.7. All constructs revealed moderate to small correlation levels with the social entrepreneurial intention scale. The highest correlations were found for *Attitude towards SE* (r=.36, p<.01), *Perceived social entrepreneurial feasibility* (r=.35, p<.01) and *Perceived social entrepreneurial desirability* (r = .38, p<.01). Low correlations were found between the *Social entrepreneurial intention scale*, *Commercial entrepreneurial intention* (r= .16, p< .01), *Social entrepreneurial knowledge* (r= .10, p< .05) and *Social entrepreneurial action* (r= .11, p< .01). The only negative correlation occurred for ethical risk-taking (r= -.09, p< .05). The results for the negative correlation were in the expected direction and met the definition of a

social entrepreneur. Overall, the results indicated weak to moderate correlations among the antecedents to social entrepreneurial intentions, indicating that the social entrepreneurial intentions scale is indeed a scale that is measuring what it is intending to measure.

6.3.4 Objective 4: To identify the strength of relationship between the social entrepreneurial intention scale and antecedents to social entrepreneurial intentions

The strength of relationship between the antecedents to social entrepreneurial intentions was achieved in Section 5.8 through a regression analysis test. Hierarchical multiple regression analyses were run to examine the relationships between a set of independent variables; *Attitude towards entrepreneurship, Social norms, Perceived behavioural control, Social entrepreneurial perceived feasibility, Social entrepreneurial perceived desirability, Ethical risk-taking, Investment risk-taking, Proactive personality* and *Altruism* against the dependent variable *Social entrepreneurial intention*, after controlling *Age, Gender* and *Level of education*. Five regression models were used to examine the relationship. Model 1 was significant at $p <$ .05. Models 2, 3, 4 and 5 were significant at $p <$.001. The *F*-value for Model 3 (*Age, Gender, Level of education, Social norms, SE Perceived behavioural control, SE Attitude towards behaviour, SE perceived desirability, SE perceived feasibility*) was the largest *F*-value; which indicated the overall predictive effect for the amount of change experienced when adding an additional variable.

6.4 CONTRIBUTIONS OF THE STUDY

The study of antecedents to social entrepreneurial intentions among Generation Y university students in South Africa has the following implications for researchers and practitioners in the field of SE:

Firstly, the content analysis of SE definitions addresses the problem of unclear definitions in the field. The study offers a comprehensive set of features of "social enterprises" and "social entrepreneurs", while paying attention to the organisational and personal perspectives on SE.

Secondly, while building on the definitions, this study made a first attempt at an empirically validated scale specifically crafted to assess the extent of a person's social entrepreneurial intention. Future application of the scale has the potential of addressing the validity problem

that arises from the application of different SE measures. Additionally, the proposed social entrepreneurial intention scale is economical and only consists of six items. The hope is that this would trigger the highly needed empirical research on the social entrepreneur.

Lastly, by validating the scale using samples of university students in South Africa and Germany, the robustness of the scale was tested against respondents from different cultural, social and economic backgrounds. Furthermore, the scale was tested in both English and German, two frequently used languages in entrepreneurship and psychological research (Sassmannshausen & Volkmann, 2018:251).

6.5 RECOMMENDATIONS

Given the high rates of youth unemployment coupled with economic decline in South Africa, encouraging every form of entrepreneurial activity is a very important task to innovatively create new jobs (Hlatywayo, Marange, & Chinyamurindi, 2017:166). Besides unemployment, South Africa is still faced with serious imbalances caused by the previous apartheid system. Other prominent challenges include low national skills and low educational levels, coupled with high levels of HIV/AIDS estimated at 19.1 percent (Littlewood & Holt, 2018:525). This study developed a scale to measure social entrepreneurial intentions. The results of the study indicate that university students perceive SE as an alternative career choice. Therefore, based on these results, the following recommendations are presented:

6.5.1 Educator involvement

There is a growing interest in teaching social entrepreneurship in most universities worldwide. At the same time, advocates for social entrepreneurs and SE education have gathered a plethora of resources for educators to advance the knowledge of social entrepreneurship among students worldwide (Brock, Kim & Davis, 2008:9). Despite an increasing amount of courses targeting the promotion of SE-levels in both developed and developing countries, syllabi of these courses are usually dominated by business related knowledge transfer, information on what exactly is meant by a social mission and how business knowledge and the social mission can be incorporated in a social enterprise (Brock *et al.*, 2008:19). However, this neglects the importance of individual psychological processes needed to actively form the intention to found a social enterprise which is usually done before enrolling in an SE-course. Consequently,

our research encourages SE-educators and promoters to not passively wait for students interested in founding a SE to come to them but to reach out for the most suitable candidates.

The SE-scale developed in this study can contribute to this in three ways. Firstly, due to the shortness and conciseness of the developed scale, it can be spread and evaluated easily which allows assessing a large sample of students and keeping the probability of good compliance rates of the participants high. Thus, a high number of students potentially interested in founding a social entrepreneurial business can be identified. Secondly, based on the SE-scores, a more targeted and active acquisition of students for SE-courses and programs becomes possible which could in turn decrease abortion rates. Third, SE-educators are enabled to conduct a more comprehensive evaluation of the success of their courses by evaluating the extent to which the intention to found a social enterprise increased during and after the course. Consequently, the best programs to increase SE-intention can be identified more easily and serve as role models for the improvement of existing programs or when designing new syllabi.

6.5.2 Monitoring the interest of social entrepreneurs

The results of the study indicate that a number of university students are aware of SE as an alternative career choice and that some have previously been engaged in social entrepreneurial action. These findings suggest that introducing social entrepreneurship to students at the early stage of career decision making could be beneficial as they develop positive attitude towards social entrepreneurship. Furthermore, nurturing the image of SE as a career alternative could be improved through actions such as using positive role models in teaching and establishing social entrepreneurial support networks, and arranging business plan competitions. Additionally, encouraging social entrepreneurship among students already practically engaged at an early stage could reduce the tendency for an attenuation of interest that may come with more years of formal education.

6.5.3 Stakeholder involvement

Given that university students have significant interest in SE, encouraging it should be the collective responsibility of various stakeholders such as governments, NGOs and private companies, as well as existing social enterprises. Business activity has a key role to play in transforming development in South Africa. Universities should form partnerships with private companies and government organisations to assist upcoming potential social entrepreneurs.

The government should create a favourable environment in the form of regulator laws and the reduction of unnecessary red tape to help upcoming SEs expand their potential to a sustainable level. Similarly, sustainable social enterprises require strong entrepreneurial orientation grounded in the use of business models (Zahra *et al.,* 2009:527); accordingly, the cost of using business models should kept to a minimum to avoid derailing the focus away from addressing the unmet social needs of society.

6.6 LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

Like in many academic studies, this study also had limitations. The study findings should be interpreted in light of the following limitations, which could also serve as reference for future research endeavours.

Firstly, the sample size of 704 university students used in the study is consistent with previous studies in the field of SE. However, generalisation of the findings to a greater population of university students should be approached with caution. Future studies in the subject area are recommended to use bigger samples and to include institutions beyond South Africa and Germany.

Secondly, the process of content reduction for the "social entrepreneur" and "social enterprise" definitions involved intense scrutiny to achieve zero to minimum loss of information. However, the proposed definitions cannot reflect all facets of social enterprises and social entrepreneurs. Furthermore, the empirical validation process and the dropout of several items led to a further decrease in content variety.

Thirdly, despite validating the scale in two different cultures, economies, and languages, the robustness of the scale has not been investigated in other cultural clusters. Considering the observation that the majority of research in the economic and behavioural sciences occurs in developed countries such as the United States (Arnett, 2008:602; Henrich, Heine & Norenzayan, 2010:111), further validation of social entrepreneurial intention scale is needed.

Lastly, *SE-knowledge* and *SE-action* was used for criterion validation for assessing the level of SE among university students. However, the real foundation of a social enterprise as a criterion was not assessed. Even though criterion validation reflects the lack of an intentional behaviour link in the whole field of entrepreneurship (Kautonen, Gelderen & Fink, 2015:655) and

especially in SE, longitudinal studies are needed to show the suitability of the social entrepreneurial intention scale and SE intention in general to predict the foundation of a social enterprise.

6.7 CONCLUDING REMARKS

This study addressed two central gaps in SE research. In order to overcome the lack of clarity on definitions in the field, the study conducted a comprehensive review of previously published SE definitions. The study employed content analysis procedures to identify the most agreed upon features of a social enterprise and a social entrepreneur. Two concise definitions of social entrepreneur and social enterprise were formulated. Each of the definitions reflected seven key aspects that defined the respective concepts.

Furthermore, the study accounted for the lack of empirical research in the field by constructing and validating a scale measuring SE intention. The process involved a three-step procedure of providing evidence of the consistency of the factorial structure, the content, and criterion validity of the proposed scale. Additionally, the robustness of the scale is tested using samples from different cultural and economic circumstances, namely South Africa and Germany.

As scholars widely agree on the necessity to increase the amount of quantitative work in SE, this study offered, to the best of the researcher's knowledge, the first scale specifically crafted to measure social entrepreneurial intention. On the one hand, the scale can contribute to increasing the validity of social entrepreneurial intentions assessment. On the other hand, the scale can serve as an encouragement to conduct quantitative research in SE. Practitioners are also served with an empirically based measure of the social entrepreneurial intention scale that could be used to select for or monitor the success of social entrepreneurial education programmes. Similarly, universities can use the study findings to develop a curriculum that fulfils students' demands with regard to SE.

REFERENCES

Abu-Saifan, S. 2012. Social entrepreneurship: definition and boundaries. *Technology Innovation Management Review*, 2(2):227–232.

Acs, Z. 2006. How is entrepreneurship good for economic growth? *Innovations*, 1(1):97–107.

Adler, P.S. & Kwon, S.W. 2002. Social capital: prospects for a new concept. *Academy of Management Review*, 27(1):17–40.

Ahmetoglu, G., Leutner, F. & Chamorro-Premuzic, T. 2011. EQ-nomics: Understanding the relationship between individual differences in trait emotional intelligence and entrepreneurship. *Personality and Individual Differences*, 51(8):1028–1033.

Ajzen, I. 1991. The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2):179–211.

Ali, A., Brush, C., De Castro, J., Lange, J., Lyons, T., Meyskens, M. & Whitman, J. 2011. *United States report.* Wellesley, MA: Babson College

Aliyu, A.A., Singhry, I.M. & Adamu, H. 2015. Ontology, epistemology and axiology in quantitative and qualitative research: elucidation of the research philosophical misconception. *Proceedings of the Academic Conference: Mediterranean Publications & Research International on New Direction and Uncommon*, 2(1):1-26.

Altinay, L., Madanoglu, M., Daniele, R. & Lashley, C. 2012. The influence of family tradition and psychological traits on entrepreneurial intention. *International Journal of Hospitality Management*, 31(2):489–499.

Alvarez, S.A. & Barney, J.B. 2007. Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1&2):11–26.

Alvarez, S.A. Barney, J.B. & Anderson, P. 2013. Forming and exploiting opportunities: the implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, 24(1):301–317.

Alvord, S.H., Brown, L.D. & Letts, C.W. 2004. Social entrepreneurship and societal transformation: an exploratory study. *The Journal of Applied Behavioural Science*, 40(3):260–282.

Amos, A.O., Oluseye, O.O. & Bosede, A.A. 2015. Influence of contextual factors on entrepreneurial intention of university students: the Nigerian experience. Journal of South African Business Research. http://www.ibimapublishing.com/journals/JSABR/2015/750622/750622.pdf. Date of access: 29th October 2017.

Anderson, R.B., Dana, L.P. & Dana, T.E. 2006. Indigenous land rights, entrepreneurship, and economic development in Canada: "opting-in" to the global economy. *Journal of World Business*, 41(1):45–55.

Anokhin, S., Grichnik, D. & Hisrich, R.D. 2008. The journey from novice to serial entrepreneurship in China and Germany: Are the drivers the same? *Managing Global Transitions*, 6(2):117–142.

Arnett, J.J. 2008. The neglected 95 percent: why American psychology needs to become less American. *American Psychologist*, 63(7):602–613.

Audretsch, D.B., Kuratko, D.F. & Link, A.N. 2015. Making sense of the elusive paradigm of entrepreneurship. *Small Business Economics*, 45(4):703–712.

Austin, J., Stevenson, H. & Wei-Skillern, J. 2006. Social and commercial entrepreneurship: same, different, or both? *Entrepreneurship Theory and Practice*, 30(1):1–22.

Autio, E., Keeley, R. H., Klofsten, M., Parker, G.C. & Hay, M. 2001. Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2):145–160.

Bacq, S. & Janssen, F. 2011. The multiple faces of social entrepreneurship: a review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5&6):373–403.

Bagozzi, R.P. 1994. *Principles of marketing research.* Cambridge: Blackwell Business.

Baierl, R., Grichnik, D., Sporrle, M. & Welpe, I.M. 2014. Antecedents of social entrepreneurial intentions: the role of an individual's general social appraisal. *Journal of Social Entrepreneurship*, 5(2):123–145.

Bandura, A. 1998. Health promotion from the perspective of social cognitive theory. *Psychology and Health*, 13(4):623–649.

Baron, R.A. 2000. Psychological perspectives on entrepreneurship: cognitive and social factors in entrepreneurs' success. *Current Directions in Psychological Science*, 9(1):5–18.

Baron, R.A. 2004. The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of Business Venturing*, 19(2):221–239.

Baron, R.A. & Ward, T.B. 2004. Expanding entrepreneurial cognitions toolbox: potential contributions from the field of cognitive science. *Entrepreneurship Theory and Practice*, 28(6):553–573.

Basu, A. & Virick, M. (2008). Assessing entrepreneurial intentions amongst students: A comparative study. Paper presented at 12th Annual Meeting of the National Collegiate Inventors and Innovators Alliance. Dallas, USA*:* National Collegiate Inventors & Innovators Alliance. p. 79-86.

Bateman, T.S. & Crant, J.M. 1993. The proactive component of organizational behaviour: a measure and correlates. *Journal of Organizational Behaviour*, 14(2):103–118.

Batson, C.D., Ahmad, N., Lishner, D. A. & Tsang, J. 2016. *Empathy and altruism. In Brown K.W & Leary M.R eds. Oxford handbook of hypo-egoic phenomena: Theory and research on the quiet.* New York: Oxford Press. p. 161-174.

Baumol, W. 1990. Entrepreneurship: productive, unproductive, and destructive. *Journal of Political Economy*, 98(5):893–921.

Baumol, W.J. 1968. Entrepreneurship in economic theory. *The American Economic Review*, 58(2):64–71.

Ben-Ner, A., Kong, F. & Putterman, L. 2004. Share and share alike? Gender-pairing, personality, and cognitive ability as determinants of giving. *Journal of Economic Psychology*, 25(1):581–589.

Berndt, A. & Petzer, D. 2011. Environmental concern of South African cohorts: An exploratory study. *African Journal of Business Management*, 5(19):7899–7910.

Berrios, R. & Lucca, N. 2006. Qualitative methodology in counselling research: recent contributions and challenges for a new century. *Journal of Counselling & Development*, 84(1):174–186.

Bird, B. 1988. Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review*, 13(3):442–453.

Blais, A. & Weber, E.U. 2006. A Domain-Specific Risk-Taking (DOSPERT) scale for adult populations. *Judgment and Decision Making,* 1(1):33–47.

Boettke P. & Rathbone A. 2002. Civil society, social entrepreneurship, and economic calculation: Towards a political economy of the philanthropic enterprise. Working Paper No 8. Carmel, IN: The Philanthropic Enterprise.

Bornstein, D. 1996. *The price of a dream. The story of the Grameen Bank and the idea that is helping the poor to change their lives*. New York: Simon and Schuster

Bornstein, D. 1998. Changing the world on a shoestring. *Atlantic Monthly*, 281(1):34–38.

Bornstein, D. 2007. *How to change the world: social entrepreneurs and the power of new ideas.* New York: Oxford University Press.

Boschee, J. 1995. Some non-profits are not only thinking about the unthinkable, they're doing it – running a profit. *The Conference Board Magazine,* 32(3):5–20.

Boschee, J. 1998. *Merging mission and money: A board member's guide to social entrepreneurship*. Washington, DC: National Centre for NGO Boards.

Bosco, F.A., Aguinis, H., Singh, K., Field, J. G. & Pierce, C.A. 2015. Correlational effect size benchmarks. *Journal of Applied Psychology*, 100(2):431-449.

Bosma, N.S. & Levie, J. 2010. Global Entrepreneurship Monitor 2009 Executive Report. With contributions from Bygrave, WD Justo, R., Lepoutre, J., & Terjesen, S. http://dspace.library.uu.nl/handle/1874/209570. Date of Access: 12th November 2015.

Bosma, N., Schøtt, T., Terjesen, S.A. & Kew, P. 2016. Global Entrepreneurship Monitor 2015 to 2016: special topic report on social entrepreneurship. http://dx.doi.org/10.2139/ssrn.2786949. Date of access: 12th February 2018.

Boyd, N.G. & Vozikis, G.S. 1994. The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4):63–77.

Boyer, G.R. & Smith, R.S. 2001. The development of the neoclassical tradition in labour economics. *ILR Review*, 54(2):199–223.

Brandstätter, H. 2011. Personality aspects of entrepreneurship: a look at five meta-analyses. *Personality and Individual Differences,* 51(3):222–230.

Braunerhjelm, P. 2010. Entrepreneurship, innovation and economic growth–past experience, current knowledge and policy implications. http://www.diva-portal.org/smash/get/diva2:484894/fulltext01.pdf Date of access: 12th March 2017.

Brenche. 2015. Why social entrepreneurship in South Africa. https://www.gibs.co.za/news-events/news/Pages/why-social-entrepreneurship-in-south-africa.aspx. Date of Access: 12th March 2018.

Brislin, R.W. 1970. Back-translation for cross-cultural research. *Journal of Cross-cultural Psychology*, 1(3):185-216.

Brock, D.D., Kim, M. & Davis, S. 2008. *Social entrepreneurship teaching resources handbook.* Arlington, VA: Ashoka Academy for Social Entrepreneurship.

Brockhaus, R.H. 1975, August. IE locus of control scores as predictors of entrepreneurial intentions. *(In* Academy of Management proceedings. Vol. 1. Briarcliff Manor, New York: Academy of Management. p. 433–435).

Brockhaus Sr, R.H. 1980. Risk taking propensity of entrepreneurs. *Academy of Management Journal,* 23(3):509-520.

Brockhaus, R.H. 1982. *The psychology of the entrepreneur. (In* Kent, C. Sexton, D. & Vesper, K.H., eds. Encyclopedia of entrepreneurship. Englewood Cliffs, NJ: Prentice Hall. p. 39–57).

Brockhaus, R.H., Jr. & Horwitz, P.S. 1986. The psychology of the entrepreneur. (In Sexton, D.L. & Smilor, R.W., eds. The art and science of entrepreneurship. Cambridge. MA: Ballinger. p. 25–48).

Brown, T.A. & Moore, M.T. 2012. *Confirmatory factor analysis. Handbook of structural equation modelling,* New York: Guilford.

Bruyat, C. & Julien, P.A. 2001. Defining the field of research in entrepreneurship. *Journal of Business Venturing,* 16(2):165–180.

Bryman, A. 2011. *Research methods in the study of leadership.* (*In* A. Bryman et al. eds. The SAGE handbook of leadership. London, England: Sage. p. 15-28).

Bull, I. & Willard, G.E. 1993. Towards a theory of entrepreneurship. *Journal of Business Venturing*, 8(3):183–195.

Bull, M. 2008. Challenging tensions: critical, theoretical and empirical perspectives on social enterprise. *International Journal of Entrepreneurial Behaviour & Research*, 14(5):268–275.

Burg, E. & Romme, A.G.L. 2014. Creating the future together: toward a framework for research synthesis in entrepreneurship. *Entrepreneurship Theory and Practice*, 38(2):369–397.

Burns, N. & Grove, S.K. 2005. *Selecting a quantitative research design. Burns N, Grove SK (eds), The Practice of Nursing Research: Conduct, Critique, and Utilization, 5th edition*. *p. 231-272.* St Louis, MO: Elsevier Saunders.

Busenitz, L.W. 1999. Entrepreneurial risk and strategic decision making: It's a matter of perspective. *Journal of Applied Behavioural Science*, 35(3):325–340.

Busenitz, L.W., Plummer, L.A., Klotz, A.C., Shahzad, A. & Rhoads, K. 2014. Entrepreneurship research (1985–2009) and the emergence of opportunities. *Entrepreneurship Theory and Practice,* 38(5):981–1000.

Busenitz, L.W., West, G.P., Shepherd, D., Nelson, T., Chandler, G.N. & Zacharakis, A. 2003. Entrepreneurship research in emergence: past trends and future directions. *Journal of Management,* 29(3):285–308.

Bygrave, W.D. & Hofer, C.W. 1991. Theorizing about entrepreneurship. *Entrepreneurship Theory and Practice*, 16(2):13–22.

Byrne, B.M. 2016. *Structural equation modelling with AMOS: basic concepts, applications, and programming*. New York: Routledge.

Cant, M.C. 2003. *Marketing research.* Claremont: New Africa Books.

Cant, MC (Ed). 2004. *Essentials of marketing, 2nd ed*. Cape Town: Juta.

Carland, J.W., Hoy, F., Boulton, W.R. & Carland, J.C. 1984. Differentiating entrepreneurs from small business owners: a conceptualization. *Academy of Management Review*, 9(2):354–359.

Carlsson, B., Braunerhjelm, P., McKelvey, M., Olofsson, C., Persson, L. & Ylinenpää, H. 2013. The evolving domain of entrepreneurship research. *Small Business Economics*, 41(4):913–930.

Carree, M.A. & Thurik, A.R. 2003. The impact of entrepreneurship on economic growth. *(In* Acs Z., Audretsch D. *eds*. Handbook of Entrepreneurship Research. International Handbook Series on Entrepreneurship, vol 5. New York: Springer. p. 437-471).

Cattell, R.B. 1966. The scree test for the number of factors. *Multivariate Behavioural Research*, 1(2):245-276.

Caves, R.E. 1998. Industrial organization and new findings on the turnover and mobility of firms. *Journal of Economic Literature*, 36(4):1947–1982.

Child, D. 2006. *The essentials of factor analysis. 3rd ed*. New York, NY: Continuum International.

Chipeta, E.M., Surujlal, J. & Koloba, H.A. 2016. Influence of gender and age on social entrepreneurship intentions among university students in Gauteng province, South Africa. *Gender and Behaviour*, 14(1):6885–6899.

Cho A.H. 2006. Politics, Values and Social Entrepreneurship: A Critical Appraisal. *(In* Mair J., Robinson J., Hockerts K. *eds.* Social Entrepreneurship, London: Palgrave Macmillan. p. 34-56).

Churchill, G.A. 1995. *Marketing Research Methodological Foundations, Sixth Edition*. Fort Worth, Texas: The Dryden Press.

Claes, R., Beheydt, C. & Lemmens, B. 2005. Unidimensionality of abbreviated proactive personality scales across cultures. *Applied Psychology*, 54(4):476-489.

Clow, K.E. & James, K.E. 2013. *Essentials of marketing research: putting research into practice.* London: Sage.

Cohen, L. & Manion, L. 1994. *Research methods in education. 4th ed.* London: Routledge.

Cohen, L., & Manion, L. & Morrison, K. 2001. *Research methods in education. 2nd ed.* London: RoutledgeFalmer.

Cohen, L. Manion, L. & Morrison, K. 2007. *Research methods in education. 6th ed*. London: Routledge.

Cohen, L., Manion, L., & Morrison, K. 2011. *Surveys, longitudinal, cross-sectional and trend studies. Research Methods in Education, 7th edition (pp .261-4).* Abingdon: Routledge.

Cohen, L., Morrison, K. & Manion, L. 2017. *Ethics in Internet research. In Research Methods in Education,* London: Routledge. p.172

Cohen, P., West, S.G. & Aiken, L.S. 2014. *Applied multiple regression/correlation analysis for the behavioural sciences.* New York: Psychology Press.

Collins, C.J., Hanges, P.J. & Locke, E.E. 2004. The relationship of achievement motivation to entrepreneurial behaviour: a meta-analysis. *Human Performance*, 17(1):95–117.

Connelly, B. L., Ireland, R. D., Reutzel, C. R. & Coombs, J. E. 2010. The power and effects of entrepreneurship research. *Entrepreneurship Theory and Practice*, 34(1):131-149.

Cooper, A. 2003. Entrepreneurship: the past, the present, the future. (*In* Acs, Z.J. & Audretsch, D.B.,*eds.* Handbook of entrepreneurship research: an interdisciplinary survey and introduction, Boston: Kluwer Academic. p. 21–34).

Cornelius, B., Landström, H. & Persson, O. 2006. Entrepre neurial studies: the dynamic research front of a developing social science. *Entrepreneurship Theory and Practice*, 30(3):375–398.

Costa, P.T., Jr. & Mccrae, R.R. 1992. Four ways five factors are basic, personality and individual differences. 135(1):653–665.

Costello, A.B. & Osborne, J.W. 2005. Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10(7):1-9.

Courvisanos, J. and Mackenzie, S. 2011. *Role of History in Economic Theory: Critical Realism and Joseph Schumpeter's Plea for Entrepreneurial History*, *24th Conference of the History of Economic Thought Society of Australia HETSA 2011,* Melbourne: RMIT University.

Crant, J.M. 1995. The Proactive Personality Scale and objective job performance among real estate agents. *Journal of Applied Psychology*, 80(4):532-537.

Crant, J.M. 1996. The proactive personality scale as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 34:42–49.

Creswell, J.W. 2003. *Research design: qualitative, quantitative, and mixed methods approaches. 2nd ed*. Thousand Oaks: Sage.

Creswell, J.W., Clark, V.L.P., Gutmann, M.L. & Hanson, W.E. 2003. *Advanced mixed methods research designs. (In* Tashakkori, A. & Teddlie, C. *ed* Handbook of mixed methods in social and behavioural research. Thousand Oaks: Sage. p. 186–190).

Creswell, J.W. 2013. Steps in conducting a scholarly mixed methods study. https://digitalcommons.unl.edu/dberspeakers/48/. Date of access: 04th October 2018

Cromie, S. 2000. Assessing entrepreneurial inclinations: Some approaches and empirical evidence. *European Journal of Work and Organizational Psychology*, 9(1):97–30.

Cromie, S. & Johns, S. 1983. Irish entrepreneurs: some personality characteristics. *Journal of Occupational Behaviour*, 4(1):317–324.

Crotty. M. 1998. *The foundations of social research: meaning and perspective in the research process*. London: Sage.

Cukier, W., Trenholm, S., Carl, D. & Gekas, G. 2011. Social entrepreneurship: a content analysis. *Journal of Strategic Innovation and Sustainability*, 7(1):99–119.

Dacin, P. A., Dacin, M. T. & Matear, M. 2010. Social entrepreneurship: why we don't need a new theory and how we move forward from here. *The Academy of Management Perspectives*, 24(3):37–57.

Dang, G. & Pheng, L.S. 2015. *Theories of economic development. (In* Infrastructure investments in developing economies, Singapore: Springer. p.11–26).

Davidsson, P. 1995. Determinants of entrepreneurial intentions. http://eprints.qut.edu.au/2076/. Date of access: 19 April 2017.

Davidsson, P. & Wiklund, J. 2001. Levels of analysis in entrepreneurship research: current research practice and suggestions for the future. *Entrepreneurship Theory and Practice*, 25(4):81–100.

Defourny, J. & Nyssens, M. 2008. Social enterprise in Europe: recent trends and developments. *Social Enterprise Journal,* 4(3):202-228.

Davies, J.B., Lluberas, R. & Shorrocks, A. F. 2017. Estimating the level and distribution of global wealth, 2000–2014. *Review of Income and Wealth*, 63(4):731-759.

Davidsson, P., Low, M. & Wright, M. 2001. Editors' introduction: Low and MacMillan ten years on–achievements and future directions for entrepreneurship research. *Entrepreneurship Theory and Practice*, 25(4):5-16.

De Carolis, D.M., Litzky, B.E. & Eddleston, K.A. 2009. Why networks enhance the progress of new venture creation: The influence of social capital and cognition. *Entrepreneurship Theory and Practice*, 33(2):527–545.

Defourny, J. & Nyssens, M. 2010. Conceptions of social enterprise and social entrepreneurship in Europe and the United States: Convergences and divergences. *Journal of Social Entrepreneurship*, 1(1):32-53

De Vaus, D. A. & de Vaus, D. 2001. *Research design in social research.* London. Sage.

Dees, J.G. 1998. The meaning of social entrepreneurship. http://www.redalmarza.cl/ing/pdf/TheMeaningofsocialEntrepreneurship.pdf. Date of access: 07 February 2017.

Defourny, J. & Nyssens, M. 2008. Social enterprise in Europe: recent trends and developments. *Social Enterprise Journal*, 4(3):202–228.

Defourny, Jacques, and Marthe Nyssens. 2010. "Conceptions of social enterprise and social entrepreneurship in Europe and the United States: Convergences and divergences." *Journal of Social Entrepreneurship* 1(1): 32-53.

Dejardin, M. 2000. *Entrepreneurship and economic growth: An obvious conjunction?* Namur: University of Namur.

De Leeuw, E. 1999. Healthy Cities: urban social entrepreneurship for health. *Health Promotion International*, 14(3):261-270.

Denzin, N.K. 2010. Moments, mixed methods and paradigm dialogs. *Qualitative Enquiry*, 16(6):419–427.

Dess, G.G., Lumpkin, G.T. & Covin, J.G. 1997. Entrepreneurial strategy making and firm performance: tests of contingency and configurational models. *Strategic Management Journal*, 18(9):677–695.

Doherty, B., Haugh, H. & Lyon, F. 2014. Social enterprises as hybrid organizations: a review and research agenda. *International Journal of Management Reviews*, 16(4): 417–436.

Dorado, S. 2006. Social entrepreneurial ventures: different values so different process of creation, no? *Journal of Developmental Entrepreneurship*, 11(04)319–343.

Douhan, R., Eliasson, G. & Henrekson, M. 2007. Israel M. Kirzner: an outstanding Austrian contributor to the economics of entrepreneurship. *Small Business Economics*, 29(1&2):213–223.

Drucker, P.F. 1985. The discipline of innovation. *Harvard Business Review*, 63(3): 67-72.

Duijn, W. 2009. Entrepreneurial intention among FDEWB students. http://www.studiosus.nl. Date of access: 10th October 2018.

Durieux, M. & Stebbins, R. 2010. *Social entrepreneurship for dummies*. New Jersey: John Wiley & Sons.

Easterby-Smith, M., Thorpe, R. & Lowe, A. 2002. *Management research methods.* London: Sage Publications.

Eisenmann, T.R. 2013. Entrepreneurship. Harvard business review. https://hbr.org/2013/01/what-is-entrepreneurship. Date of Access: 04 April 2017.

Ekelund, R.B., Jr. & Hébert, R. F. 2013. *A history of economic theory and method*. Illinois: Waveland Press.

El Ebrashi, R. 2013. Social entrepreneurship theory and sustainable social impact. *Social Responsibility Journal*, 9(2):188–209.

Elkington, J. & Hartigan, P. 2008. *The power of unreasonable people: how social entrepreneurs create markets that change the world*. Boston MA: Harvard Business Press.

Emerson, J. & Twersky, F. (Eds). 1996. *New social entrepreneurs: The success, challenge and lessons of non-profit enterprise creation*. San Francisco: Roberts Foundation, Homeless Economic Fund

Engel, S.N. 2010. Development economics: from classical to critical analysis. (*In* Denemark, R.A., ed. The international studies encyclopedia. *Vol. II*. West Sussex: Blackwell. p. 874–892).

Engle, D.E., Mah, J.J. & Sadri, G. 1997. An empirical comparison of entrepreneurs and employees: Implications for innovation. *Creativity Research Journal*, 10(1):45–49.

Ernst, K. 2014. Heart over mind–An empirical analysis of social entrepreneurial intention formation on the basis of the theory of planned behaviour. Wuppertal: Universität Wuppertal, Fakultät für Wirtschaftswissenschaft/Schumpeter School of Business and Economics. (Dissertation–PhD). 309 p.

Espíritu-Olmos, R. & Sastre-Castillo, M.A. 2015. Personality traits versus work values: comparing psychological theories on entrepreneurial intention. *Journal of Business Research*, 68(7):1595–1598.

Fanti, L. & Manfredi, P. 2003. The Solow's model with endogenous population: a neoclassical growth cycle model. *Journal of Economic Development*, 28(2):103–116.

Fatoki, O.O. & Chindoga, L. 2011. An investigation into the obstacles to youth entrepreneurship in South Africa. *International Business Research, 4*(2):161-169.

Fayolle, A. 2002. Insights to research on the entrepreneurial process from a study on perceptions of entrepreneurship and entrepreneurs. *Journal of Enterprising Culture*, 10(4):257–285.

Fayolle, A. & Liñán, F. 2014. The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5):663–666.

Federal Ministry for Economic Affairs and Energy. 2017. Facts and figures – start-ups and entrepreneurial spirit in Germany. https://www.existenzgruender.de/ Date of access: 13 August 2018.

Field, A. 2009. *Discovering statistics using SPSS. 3rd ed*. London: Sage.

Figge, F., Hahn, T., Schaltegger, S. & Wagner, M. 2002. The Sustainability Balanced Scorecard: linking sustainability management to business strategy. *Business Strategy and the Environment*, 11:269–284.

Figner, B. & Weber, E.U. 2011. Who takes risks when and why? Determinants of risk taking. *Current Directions in Psychological Science*, 20(4):211–216.

Fishbein. M. & Ajzen, I. 1975. *Belief, attitude, intention and behaviour: an introduction to theory and research*. Reading, MA: Addison-Wesley.

Formaini, R.L. 2001. The engine of capitalist process: entrepreneurs in economic theory. *Economic & financial review*. https://core.ac.uk/download/pdf/6971104.pdf. Date of access: 06 March 2017.

Forster, F. & Grichnik, D. 2013. Social entrepreneurial intention formation of corporate volunteers. *Journal of Social Entrepreneurship*, 4(2):153–181.

Fowler, A. 2000. NGDOs as a moment in history: beyond aid to social entrepreneurship or civic innovation? *Third World Quarterly*, 21(4):637-654.

Franco, M. & D'Angelo, N. 2010. Investment risk behaviour in different domains: Entrepreneurs vs public employees. *(In* Escuela, B.M., Aizpuru, C.M. & Moralales, G.M.O.,

Eds. *Las politicas de empleo: Macroeconomia y empresa*. Universidad de La Laguna, Spain. p. 1-15).

Frank, H., Lueger, M. & Korunka, C. 2007. The significance of personality in business start-up intentions, start-up realization and business success. *Entrepreneurship & Regional Development*, 19(3):227–251.

Frowe, I. 2001 'Language and Educational Research'. J*ournal of Philosophy of Education*, 35(2):175–186

Gaglio, C.M. & Katz, J.A. 2001. The psychological basis of opportunity identification: entrepreneurial alertness. *Small Business Economics*, 16(2):95–111.

Gartner. W.B. 1988. "Who is an entrepreneur?" is the wrong question. *American Journal of Small Business*, 72(4):47–61.

Gartner, W.B. 1989. Some suggestions for research on entrepreneurial traits and characteristics. *Entrepreneurship Theory and Practice*, 14(1):27–37.

Gartner, W.B. 1990. What are we talking about when we talk about entrepreneurship? *Journal of Business Venturing*, 5(1):15–28.

Geertz, C. 1963. *Peddlers and princes: Social development and economic change in two Indonesian towns (Vol. 318)*. Chicago: University of Chicago Press.

Gedeon, S. 2010. What is entrepreneurship? *Entrepreneurial Practice Review*, 1(3):16-34.

Germak, A.J. & Robinson, J.A. 2014. Exploring the motivation of nascent social entrepreneurs. *Journal of Social Entrepreneurship*, 5(1):5–21.

Ghauri, P.N. & Grönhaug, K. 2010. *Research methods in business studies*. London: Pearson, Prentice Hall.

Gorgievski, M.J., Stephan, U., Laguna, M. & Moriano, J.A. 2018. Predicting entrepreneurial career intentions: Values and the theory of planned behaviour. *Journal of Career Assessment*, 26(3):457-475.

Grix, J. 2002. Introducing students to the generic terminology of social research. *Politics*, 22(3):175–186.

Grix, J. 2004. *The foundations of research.* London: Palgrave, Macmillan.

Grohs, S., Schneiders, K. & Heinze, R.G. 2015. Social entrepreneurship versus intrapreneurship in the German social welfare state: A study of old-age care and youth welfare services. *Non-profit and Voluntary Sector Quarterly*, 44(1):163-180.

Grohs, S., Schneiders, K. & Heinze, R.G. 2017. Outsiders and Intrapreneurs: The Institutional Embeddedness of Social Entrepreneurship in Germany. VOLUNTAS: *International Journal of Voluntary and Non-profit Organizations*, 28(6):2569-2591.

Guba, E.G. & Lincoln, Y.S. 1994. Competing paradigms in qualitative research. *(In* Denzin, N.K. & Lincoln, Y.S. *eds.* The handbook of qualitative research. Thousand Oaks: Sage. p.105–117).

Guba, E.G. & Lincoln, Y.S. 2005. Paradigmatic controversies, contradictions, and emerging confluences. *(In* Denzin, N.K. & Lincoln, Y.S. *eds.* The Sage handbook of qualitative research. 3rd ed. Thousand Oaks: Sage. p. 191–215).

Guerrero, M., Rialp, J. & Urbano, D. 2008. The impact of desirability and feasibility on entrepreneurial intentions: a structural equation model. *International Entrepreneurship and Management Journal*, 4(1):35–50.

Gupta, V., Hanges, P.J. & Dorfman, P. 2002. Cultural clusters: methodology and findings. *Journal of World Business*, 37(1):11–15.

Hackett, T.M. 2010. Challenging social enterprise debates in Bangladesh. *Social Enterprise Journal*, 6(3):210–224.

Haig, B.D. 2010. Abductive research methods. https://www.sciencedirect.com/topics/nursing-and-health-professions/exploratory-factor-analysis. Date of access: 04 June 2018.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. 2010. *Multivariate data analysis. 7th ed.* Upper Saddle River, New Jersey: Prentice Hall.

Halsmayer, V. & Hoover, K.D. 2016. Solow's Harrod: transforming macroeconomic dynamics into a model of long-run growth. *The European Journal of the History of Economic Thought*, 23(4):561–596.

Hansemark, O.C. 2003. Need for achievement, locus of control and the prediction of business start-ups: a longitudinal study. *Journal of Economic Psychology*, 24(3):301–319.

Harrington, D. 2009. *Confirmatory Factor analysis.* New York: Oxford University Press.

Hassan, Z.A., Schattner, P. & Mazza, D. 2006. Doing a pilot study: why is it essential? *Malaysian Family Physician: the official journal of the Academy of Family Physicians of Malaysia*, 1(2&3):70.

Haynie, J.M., Shepherd, D., Mosakowski, E. & Earley, P.C. 2010. A situated metacognitive model of the entrepreneurial mindset. *Journal of Business Venturing*, 25(2):217–229.

Hébert, R.F. & Link, A.N. 1989. In search of the meaning of entrepreneurship. *Small Business Economics*, 1(1):39–49.

Hébert, R.F. & Link, A.N. 2009. *A history of entrepreneurship*. London: Routledge.

Henrich, J., Heine, S.J. & Norenzayan, A. 2010. Beyond weird: towards a broad-based behavioural science. *Behavioural and Brain Sciences*, 33(2&3):111–135.

Henry, C., Hill, F. & Leitch, C. 2003. Developing a coherent enterprise support policy: a new challenge for governments. *Environment and Planning C: Government and Policy*, 21(1):3-19.

Herrington, M., Kew, J., Kew, P. & Monitor, G.E. 2010. *Tracking entrepreneurship in South Africa: a GEM perspective*. Cape Town: University of Cape Town, Graduate School of Business.

Herron, L. & Sapienza, H.J. 1992. The entrepreneur and the initiation of new venture launch activities. *Entrepreneurship Theory and Practice*, 17(1):49–55.

Hervieux, C., Gedajlovic, E. & Turcotte, M.F.B. 2010. The legitimization of social entrepreneurship. *Journal of Enterprising Communities: People and Places in the Global Economy*, 4(1):37–67.

Hinkin, T.R., Tracey, J.B. & Enz, C.A. 1997. Scale construction: developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research*, 21(1):100–120.

Hitchcock, G. & Hughes D. 1995 (Second Edition) *Research and the Teacher: A qualitative introduction to school-based research*. London: Routledge.

Hlatywayo, C.K., Marange, C.S. & Chinyamurindi, W.T. 2017. A hierarchical multiple regression approach on determining the effect of psychological capital on entrepreneurial intention amongst prospective university graduates in South Africa. *Journal of Economics and Behavioural Studies*, 9(1):166–178.

Hockerts, K. 2015. The social entrepreneurial antecedents scale (SEAS): a validation study. *Social Enterprise Journal*, 11(3):260–280.

Hockerts, K. 2017. Determinants of social entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 41(1):105–130.

Hockerts, K. & Wüstenhagen, R. 2010. Greening Goliaths versus emerging Davids—theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5):481–492.

Hofer, B.K. & Pintrich, P.R. 1997. The development of epistemological theories: beliefs about knowledge and knowing and their relation to learning. *Review of Educational Research*, 67(1):88–140.

Holcombe, R.G. 1998. Entrepreneurship and economic growth. *The Quarterly Journal of Austrian Economics*, 1(2):45–62.

Holt, D. & Littlewood, D. 2018. Social entrepreneurship in South Africa: exploring the influence of environment. *Business and Society*, 57(3):525–561.

Hoogendoorn, B., Pennings, E. & Thurik, R. 2010. What do we know about social entrepreneurship: an analysis of empirical research? https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1462018. Date of access: 22 October 2017.

Hooker, B. 2017. What makes a judgement a moral judgement? *Journal of Political Theory and Philosophy*, 1(1):97–112.

Hooper, D., Coughlan, J. & Mullen, M. 2008. Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6(1):53-60.

Hossain, S., Saleh, M.A. & Drennan, J. 2017. A critical appraisal of the social entrepreneurship paradigm in an international setting: a proposed conceptual framework. *International Entrepreneurship and Management Journal*, 13(2):347–368.

Hsieh, H.F. & Shannon, S.E. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9):1277–1288.

Hu, L.T. & Bentler, P.M. 1999. Cut-off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modelling: a Multidisciplinary Journal*, 6(1):1–55.

Jain, P.S. 1996. Managing credit for the rural poor: lessons from the Grameen Bank. *World Development*, 24(1):79-89.

Johnson, S. 2000. Literature review on social entrepreneurship. *Canadian Centre for Social Entrepreneurship*, 16:23–40.

Karanda, C. & Toledano, N. 2012. Social entrepreneurship in South Africa: a different narrative for a different context. *Social Enterprise Journal*, 8(3):201-215.

Kao, R.W. 1993. Defining entrepreneurship: past, present and? *Creativity and Innovation Management*, 2(1):69–70.

Karanda, C. & Toledano, N. 2012. Social entrepreneurship in South Africa: a different narrative for a different context. *Social Enterprise Journal*, 8(3):201-215.

Karimi, S., Biemans, H.J., Naderi Mahdei, K., Lans, T., Chizari, M. & Mulder, M. 2017. Testing the relationship between personality characteristics, contextual factors and entrepreneurial intentions in a developing country. *International Journal of Psychology*, 52(3):227–240.

Kautonen, T., Gelderen, M. & Fink, M. 2015. Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3):655–674.

Kautonen, T., Van Gelderen, M. & Tornikoski, E.T. 2013. Predicting entrepreneurial behaviour: a test of the theory of planned behaviour. *Applied Economics*, 45(6):697–707.

Kerlin, J.A. 2006. Social enterprise in the United States and Europe: understanding and learning from the differences. *Voluntas: International Journal of Voluntary and Non-profit Organizations*, 17(3):246. https://doi.org/10.1007/s11266-006-9016-2.

Kerlin, J.A. 2013. Defining social enterprise across different contexts: A conceptual framework based on institutional factors. *Non-profit and Voluntary Sector Quarterly*, 42(1):84–108.

Kilic, K.C. & Keles, C. 2013, July. The business challenges of entrepreneurship in transition economies. International Conference on European Studies. http://dspace.epoka.edu.al/handle/1/405. Date of access: 05 July 2017.

Kirzner, I.M. 1973. *Competition and entrepreneurship*. Chicago, IL: University of Chicago press.

Kirzner, I.M. 1979. *Perception, opportunity, and profit. Chicago*: University of Chicago press.

Kline, R.B. 2015. *Principles and practice of structural equation modelling*. New York: Guilford.

Kolvereid, L. 1996. Prediction of employment status choice intentions. *Entrepreneurship: Theory & Practice*, 21(1):47–57.

Koppl, R. & Minniti, M. 2003. Market processes and entrepreneurial studies. *(In* Acs, Z.J. & Audretsch, D.B., *eds.* Handbook of entrepreneurship research: an interdisciplinary survey and introduction. New York: Springer. p. 217–248).

Kraus, S., Filser, M., O'Dwyer, M. & Shaw, E. 2014. Social entrepreneurship: an exploratory citation analysis. *Review of Managerial Science*, 8(2):275–292.

Krosnick, J. A. & S. Presser. 2010. *Questionnaire design. In: (D. Wright and P.V. Marsden, eds.) Handbook of survey research (2nd ed.)*. Emerald Group, West Yorkshire, England, p 263–314

Krueger, N.F. & Brazeal, D.V. 1994. Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship: Theory & Practice*, 18(3):91–104.

Krueger, N.F., Reilly, M.D. & Carsrud, A.L. 2000. Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5):411–432.

Krueger, N.F., Schulte, W.D. & Stamp, J. 2008. Beyond Intent: Antecedents of Resilience & Precipitating Events for Social Entrepreneurial Intentions and ... Action (January 25, 2008). Available at SSRN: https://ssrn.com/abstract=1155264 or http://dx.doi.org/10.2139/ssrn.115526

Krueger Jr, N., Kickul, J., Gundry, L. K., Verma, R. & Wilson, F. 2009. Discrete choices, trade-offs, and advantages: modelling social venture opportunities and intentions. https://scholarship.sha.cornell.edu/articles/570/. Date of access: 03 April 2018.

Kruse, P., Wach, D. & Wegge, J. 2018. What motivates social entrepreneurs? — A meta-analysis on predictors of social entrepreneurial intention. (Manuscript submitted for publication).

Landstrom, H. 1999. The roots of entrepreneurship research. *New England Journal of Entrepreneurship*, 2(2):9-20.

Landström, H., Harirchi, G. & Åström, F. 2012. Entrepreneurship: Exploring the knowledge base. *Research Policy*, 41(7):1154-1181.

Lasprogata, G. & Cotton, M.N. 2003. Contemplating 'enterprise': the business and legal challenges of social entrepreneurship. *American Business Law Journal*, 41(1):67–113.

Leadbeater, C. 1997. *The rise of the social entrepreneur (No. 25).* London: Demos.

Lee, M., Battilana, J., & Wang, T. 2014. Building an infrastructure for empirical research on social enterprise: Challenges and opportunities. (*In* Jeremy Short *ed.* Social Entrepreneurship and Research Methods (Research Methodology in Strategy and Management, Volume 9) Emerald Group Publishing Limited. p.241 – 264).

Lee, S.H. & Wong, P.K. 2004. An exploratory study of technopreneurial intentions: a career anchor perspective. *Journal of Business Ventur*ing, 19(1):7–28.

Lenth, R.V. 2001. Some practical guidelines for effective sample size determination. *The American Statistician, 55*(3):187-193.

Lepoutre, J., Justo, R., Terjesen, S. & Bosma, N. 2013. Designing a global standardized methodology for measuring social entrepreneurship activity: the Global Entrepreneurship Monitor social entrepreneurship study. *Small Business Economics*, 40(3):693–714.

Light, P.C. 2010. *Driving social change: how to solve the world's toughest problems*. New Jersey: John Wiley & Sons.

Liñán, F. & Chen, Y.W. 2006. Testing the entrepreneurial intention model on a two-country sample. https://idus.us.es/xmlui/handle/11441/60716. Date of access: 21 March 2018.

Liñán, F. & Chen, Y.W. 2009. Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3):593–617.

Liñán, F. & Fayolle, A. 2013. A systematic literature review on entrepreneurial intentions. *International Entrepreneurship and Management Journal*, 11(4):907–933.

Liñán, F., Fernández-Serrano, J. & Romero, I. 2013. Necessity and opportunity entrepreneurship: the mediating effect of culture. *Revista de Economía Mundial*, 33(1):21-47.

Liñán, F., Rodríguez-Cohard, J.C. & Rueda-Cantuche, J.M. 2011. Factors affecting entrepreneurial intention levels: a role for education. *International Entrepreneurship and Management Journal*, 7(2):195-218.

Liñán, F. & Santos, F.J. 2007. Does social capital affect entrepreneurial intentions? *International Advances in Economic Research*, 13(4):443–453.

Littlewood, D. & Holt, D. 2018. Social entrepreneurship in South Africa: exploring the influence of environment. *Business & Soci*ety, 57(3):525–561.

Llewellyn, D.J. & Wilson, K.M. 2003. The controversial role of personality traits in entrepreneurial psychology. *Education+ Training*, 45(6):341–345.

Lomax, R.G. & Hahs-Vaughn, D. L. 2013. *Statistical concepts: A second course.* New York: Routledge.

Lomax, R.G. & Schumacker, R.E. 2004. *A beginner's guide to structural equation modelling.* Mahwah: Psychology press.

Low, M.B. & MacMillan, I.C. 1988. Entrepreneurship: past research and future challenges. *Journal of management*, 14(2):139–161.

Lowe, A. 1954. The Classical Theory of Economic Growth. *Social Research*. 21(1):127-158.

Lüthje, C. & Franke, N. 2003. The 'making'of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2):135–147.

Lynch, J.W., Smith, G.D., Kaplan, G.A. & House, J.S. 2000. Income inequality and mortality: importance to health of individual income, psychosocial environment, or material conditions. BMJ: *British Medical Journal,* 320(7243):1200-1204.

Mack & Pützschel, 2014. The influence of contextual factors on the entrepreneurial process. A Multiple-Case Study of Sustainability-oriented and Commercial Entrepreneurship in Central America. (Dissertation–Master).140p.

Mackenbach, J.P. 2017. Persistence of social inequalities in modern welfare states: Explanation of a paradox. *Scandinavian Journal of Public Health*, 45(2):113-120.

Mair, J. & Marti, I. 2004. Social entrepreneurship: What are we talking about? A framework for future research (No. D/546). IESE Business School. https://ideas.repec.org/p/ebg/iesewp/d-0546.html. Date of access: 10th Oct, 2018.

Mair, J. & Marti, I. 2006. Social entrepreneurship research: a source of explanation, prediction, and delight. *Journal of World Business*, 41(1):1–21.

Mair, J. & Marti, I. 2009. Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, 24(5):419-435.

Mair, J. & Noboa, E. 2006. Social entrepreneurship: How intentions to create a social venture are formed. *(In* Mair, J. Robinson J. & Hockerts K. *eds*. Social entrepreneurship. Basingstoke: Palgrave-Macmillan. p. 121-135).

Malhotra, N.K. 2010. *Marketing Research: An Applied Orientation*. New Jersey: Pearson

Malhotra, N.K. & Birks, D.F. 2007. *Marketing research: an applied approach.* New Jersey: Pearson Education.

Malhotra, N.K. & Peterson, M. 2006. *Basic Research Marketing: A decision-making approach.* New Jersey: Pearson Education, Inc

Malhotra, N.K. & Peterson, M. 2014. *Basic marketing research*. New Jersey: Pearson.

Malerba, F. & Orsenigo, L. 1995. Schumpeterian patterns of innovation. Cambridge *Journal of Economics,* 19(1):47–65.

Maree, K. 2007. *First steps in research*. Pretoria: Van Schaik.

Mack, L. 2010. The Philosophical Underpinnings of Educational Research. *Polyglossia*, 19(1) 1-10.

Martins, J.H., Loubser, M.G., & Van Wyk, H.D. J. (Eds.). 1996. *Marketing research: a South African approach.* Pretoria: Unisa Press.

Martin, R.L. & Osberg, S. 2007. Social entrepreneurship: the case for definition. *Stanford Social Innovation Review*, 5(2):28–39.

Mauksch, S. 2012. Beyond managerial rationality: exploring social enterprise in Germany. *Social Enterprise Journal,* 8(2):156-170.

Mayring, P. 2014. Qualitative content analysis: theoretical foundation, basic procedures and software solution. https://www.ssoar.info/ssoar/handle/document/39517. Date of access: 25 May 2018.

McClelland, D.C. 1961. *The achieving society.* Princeton, New Jersey: Van Nostrand.

McClelland, D.C. 1965. N-achievement and entrepreneurship: a longitudinal study. *Journal of Personality and Social Psychology*, 1(4):389-392.

McClelland, D.C. 1967. *Achieving society*. New York: Simon and Schuster.

McDaniel, B.A. 2005. A contemporary view of Joseph A. Schumpeter's theory of the entrepreneur. *Journal of Economic Issues,* 39(2):485–489.

Meier, G.M. 2001. *"*The Old Generation of Development Economists and the New*," (In* Meier, G. M. and J. E. Stiglitz *eds.* Frontiers of Development Economists*:* The Future Perspectives. Washington D.C.: Oxford University Press. p. 13-58).

Meyer, N. & Landsberg, J. 2015. Motivational Factors Influencing Women's Entrepreneurship: A Case Study of Female Entrepreneurship in South Africa. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioural, Educational, Economic, Business and Industrial Engineering*, 9(11):3857-3862.

Mertens, D.M. 2005. *Research methods in education and psychology: integrating diversity with quantitative and qualitative approaches. 2nd ed*. Thousand Oaks: Sage.

Miller, T.L., Grimes, M.G., McMullen, J.S. & Vogus, T.J. 2012. Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review*, 37(4):616–640.

Miller, T.L., Wesley, C.L. & Williams, D.E. 2012. Educating the minds of caring hearts: comparing the views of practitioners and educators on the importance of social entrepreneurship competencies. *Academy of Management Learning & Education*, 11(3):349–370.

Miner, J.B., Smith, N.R. & Bracker, J.S. 1994. Role of entrepreneurial task motivation in the growth of technically innovative firms: Interpretations from follow-up data. *Journal of Applied Psychology,* 79(4):627–630.

Minniti, M. & Nardone, C. 2007. Being in someone else's shoes: the role of gender in nascent entrepreneurship. *Small Business Economics,* 28(2-3):223-238.

Miralles, F., Riverola, C. & Giones, F. 2012. Analysing nascent entrepreneurs' behaviour through intention based models. (*In* Proceedings of the 7th European Conference on Innovation and Entrepreneurship, Santarem, Portugal. p. 482-491).

Mishra, D., Akman, I. & Mishra, A. 2014. Theory of reasoned action application for green information technology acceptance. *Computers in Human Behaviour*, 36(1):29–40.

Mitchell, M.L. & Jolley, J.M. 2012. *Research design explained. 8th eds.* Belmont: Wadsworth Cengage Learning.

Murphy, A.E. & Murphy, F.E.E.A.E. 1986. *Richard Cantillon: entrepreneur and economist.* New York: Oxford University Press.

Murphy, P.J., Liao, J. & Welsch, H.P. 2006. A conceptual history of entrepreneurial thought. *Journal of Management History*, 12(1):12-35.

Murthy, S.N. & Bhojanna, U. 2010. *Business research methods. 3rd ed.* New Delhi: Excel Books.

Naffziger, D.W., Hornsby, J.S. & Kuratko, D.F. 1994. A proposed research model of entrepreneurial motivation. *Entrepreneurship Theory and Practice*, 18(3):29–42.

Naudé, W. 2008. Entrepreneurship in economic development. UNU-WIDER, Research Paper No. 2008/20, p. 47, https://www.econstor.eu/bitstream/10419/63572/1/560604459.pdf. Date of access: 13 March 2017.

Naudé, W. 2010. Entrepreneurship, developing countries, and development economics: new approaches and insights. *Small Business Economics*, 34(1):1. https://doi.org/10.1007/s11187-009-9198-2.

Naudé, W. 2013. Entrepreneurship and economic development: theory, evidence and policy. https://www.econstor.eu/bitstream/10419/63572/1/560604459.pdf. Date of access: 17 March 2017.

Negishi, T. 2014. *History of economic theory. Vol. 26.* Amsterdam: Elsevier.

Nicholls, A., *ed.* 2008. *Social entrepreneurship: new models of sustainable social change*. New York: Oxford University Press.

Nicholls, A. 2010. The legitimacy of social entrepreneurship: reflexive isomorphism in a pre-paradigmatic field. *Entrepreneurship Theory and Practice*, 34(4):611–633.

Nicolaou, N. & Shane, S. 2009. Can genetic factors influence the likelihood of engaging in entrepreneurial activity? *Journal of Business Venturing*, 24(1):1–22.

Nicolaou, N., Shane, S., Cherkas, L., Hunkin, J. & Spector, T.D. 2008. Is the tendency to engage in entrepreneurship genetic? *Management Science*, 54(1):167–179.

Nga, J.K.H. & Shamuganathan, G. 2010. The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of Business Ethics*, 95(2):259-282.

Njoroge, C.W. & Gathunga, J.M. 2013. The effect of entrepreneurial education and training of small and medium size enterprises in Githunguri district – Kenya. *International Journal of Education and Research*, 1(8):1–22.

Oda, R., Machii, W., Takagi, S., Kato, Y., Takeda, M., Kiyonari, T., Fukukawa Y. & Hiraishi, K. 2014. Personality and altruism in daily life. *Personality and Individual Differences*, 56(1):206-209.

Oluwajodu, F., Greyling, L., Blaauw, D. & Kleynhans, E.P. 2015. Graduate unemployment in South Africa: perspectives from the banking sector. *South African Journal of Human Resource Management*, 13(1):1–9.

O'Neill, M. 2013. The origins of social entrepreneurship. *(In* Young, D.R., ed. If not for profit, for what? Lexington, MA: Lexington Books. p. 37–39).

Oosterbeek, H., Van Praag, M. & Ijsselstein, A. 2010. The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54(3):442-454

Osei-Hwedie, B.Z. & Kurantin, N. 2017. The impact of infrastructure on growth and development: The case for Ghana, 1986-2016. (*In* Handbook of research on economic, financial, and industrial impacts on infrastructure development. IGI Global. p. 84-113). https://www.igi-global.com/chapter/the-impact-of-infrastructure-on-growth-and-development/181134. Date of Access: 11th October 2018.

Otto, P.E. & Bolle, F. 2011. Multiple facets of altruism and their influence on blood donation. *The Journal of Socio-Economics*, 40(5), 558-563.

Paloniemi, K. & Belt, P. 2015. Mismatch in teachers' ontological conception of entrepreneurship education. *(In* Jose C. Sanchez-Garcia ed. Entrepreneurship education and training. London: Intech Open. p. 262-278).

Parker, W.N. 1954. Entrepreneurship, industrial organization, and economic growth: a German example. *The Journal of Economic History*, 14(04):380–400.

Peet, R. & Hartwick, E. 2015. *Theories of development: contentions, arguments, alternatives. 3rd ed.* New York: Guilford.

Peneder, M. 2009. The meaning of entrepreneurship: a modular concept. *Journal of Industry, Competition and Trade*, 9(2):77–99.

Peredo, A.M. & McLean, M. 2006. Social entrepreneurship: a critical review of the concept. *Journal of World Business*, 41(1):56–65.

Petrocelli, J.V. 2003. Hierarchical multiple regression in counselling research: common problems and possible remedies. *Measurement and Evaluation in Counselling and Development*, 36(1):9–22.

Pierre, A., von Friedrichs, Y. & Wincent, J. 2014. A review of social entrepreneurship research. (*In* Lundström A., Zhou C., von Friedrichs Y., Sundin E. (eds). Social entrepreneurship. Heidelberg: Springer International Publishing. p. 43-69).

Pituch, K.A. & Stevens, J.P. 2015. *Applied multivariate statistics for the social sciences: analyses with SAS and IBM's SPSS*. New York: Routledge.

Prabhu, V.P., McGuire, S.J., Kwong, K.K., Zhang, Y. & Ilyinsky, A. 2017. Social entrepreneurship among millennials: a three-country comparative study. *Australian Academy of Accounting and Finance Review*, 2(4):323–353.

Prahalad, C.K. 2006. The innovation sandbox. *Strategy and Business*, 44(1):1–10.

Prieto, L.C. 2011. The influence of proactive personality on social entrepreneurial intentions among African American and Hispanic undergraduate students: the moderating role of hope. *Academy of Entrepreneurship Journal*, 17(2):77–96.

Polit, D.F., Beck, C.T. & Hungler, B.P. 2001. *Essentials of nursing research: methods, appraisal and utilization. 5th ed.* Philadelphia: Lippincott Williams & Wilkins.

Porter, M.E. & Kramer, M.R. 2011. Creating shared value. *Harvard Business Review*, 89(1&2):62–77.

Radipere, N.S. & Ladzani, W. 2014. The effects of entrepreneurial intention on business performance. *Journal of Governance and Regul*ation. 3(4):190–202.

Raposo, M. do Paco, A. & Farreira, J. 2008. Entrepreneur's Profile: A Taxonomy of Attributes and Motivations of University Students. *Journal of Small Business and Enterprise Development*, 15(2):405-418.

Rauch, A. & Frese, M. 2007. Let's put the person back into entrepreneurship research: a meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4):353–385.

Refaat, A.A. 2009. Fostering entrepreneurial intention among engineering students. *(In* Dondon P., Martin O., Zaharim A., Mladenov V., Bojkovik Z. & Bojkovic D, eds. Proceedings of the World Scientific and Engineering Academy Society Conference. Wisconsin: Stevens Point. p. 159–167).

Reisman, D.A. 2004. *Schumpeter's market: enterprise and evolution*. Northampton MA: Edward Elgar.

Reynolds, P.D., Hay, M. & Camp, S.M. 1999. *Global entrepreneurship monitor*. Kansas City: Kauffman Centre for Entrepreneurial Leadership.

Rivera-Santos, M., Holt, D., Littlewood, D. & Kolk, A. 2015. Social entrepreneurship in sub-Saharan Africa. *The Academy of Management perspectives*, 29(1):72–91.

Roberts Caroline, E. 2007. *Mixing modes of data collection in surveys: A methodological review (No. 008).* London: ESRC National Centre for Research Methods, City University.

Roberts, D. & Woods, C. 2005. Changing the world on a shoestring: the concept of social entrepreneurship. *University of Auckland Business Review*, 7(1):45–51.

Runyan, R., Droge, C. & Swinney, J. 2008. Entrepreneurial orientation versus small business orientation: What are their relationships to firm performance? *Journal of Small Business Management*, 46(4):567–588.

Rushton, J.P., Chrisjohn, R.D. & Fekken, G.C. 1981. The altruistic personality and the self-report altruism scale. *Personality and Individual Differences*, 2(4):293–302

Sahlman, W.A. 1996. Some thoughts on business plans. *(In* Sahlman, W.A.,Stevenson, H., Roberts, M.J. & Bhide, A.V., eds. The entrepreneurial venture. Boston: Harvard Business School Press. p. 138–176).

Santos, F.M. 2012. A positive theory of social entrepreneurship. *Journal of Business Ethics*, 111(3):335–351.

Santos, F. & Eisenhardt, K. 2009. Constructing markets and organizing boundaries: entrepreneurial power in nascent fields. *Academy of Management Journal*, 52(4):643-671.

Santos-Cumplido, F.J. & Liñán, F. 2007. Measuring entrepreneurial quality in southern Europe. *International Entrepreneurship and Management Journal*, 3(1):87-107.

Sarasvathy, S.D. 2004. The questions we ask and the questions we care about: reformulating some problems in entrepreneurship research. *Journal of Business Venturing*, 19(5):707-717.

Sarasvathy S.D., Dew N., Velamuri S.R., Venkataraman S. 2003 Three Views of Entrepreneurial Opportunity. *In:* Acs Z.J., Audretsch D.B. (eds). Handbook of Entrepreneurship Research. International Handbook Series on Entrepreneurship, vol 1. Boston, MA: Springer. p. 141-160).

Sassmannshausen, S.P. & Volkmann, C. 2018. The scientometrics of social entrepreneurship and its establishment as an academic field. *Journal of Small Business Management*, 56(2):251–273.

Saunders, M., Lewis, P. & Thornhill, A. 2007. *Research methods for business students. 4th ed.* Edinburgh: Pearson Education.

Schaltegger, S. & Wagner, M. 2011. Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business Strategy and the Environment*, 20(4):222–237.

Schildt, H.A., Zahra, S.A. & Sillanpää, A. 2006. Scholarly communities in entrepreneurship research: a co-citation analysis. *Entrepreneurship Theory and Practice*, 30(3):399–415.

Schmidt, H. J., Baumgarth, C., Wiedmann, K.P. & Lückenbach, F. 2015. Strategic orientations and the performance of Social Entrepreneurial Organisations (SEOs): a conceptual model. *Social Business*, 5(2):131–155.

Schumpeter J.A. 1954. *History of Economic Analysis*. New York, 894.

Schulze, S. & Kamper, G. 2014. The use of mixed methods as reflected in two eminent South African educational research journals. *Journal for New Generation Sciences*, 10(1):130–147.

Scotland, J. 2012. Exploring the philosophical underpinnings of research: relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9):9–16

Seelos, C. & Mair, J. 2005. Social entrepreneurship: Creating new business models to serve the poor. *Business Horizons,* 48(3):241-246.

Shane, S. & Nicolaou, N. 2013. The genetics of entrepreneurial performance. International *Small Business Journal,* 31(5):473-495.

Shane, S. & Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1):217–226.

Shapero, A. & Sokol, L. 1982. The social dimensions of entrepreneurship. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1497759. Date of access: 17 April 2017.

Sharir, M. & Lerner, M. 2006. Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of World Business*, 41(1):6–20.

Shockley, G.E. 2013. Nonprofit entrepreneurship as 'Interesting Science'. *(In* Young, D.R., ed. If not for profit, for what? Lexington, MA: Lexington Books. p. 41–44).

Short, J.C., Moss, T.W. & Lumpkin, G.T. 2009. Research in social entrepreneurship: past contributions and future opportunities. *Strategic Entrepreneurship Journal*, 3(2):161–194.

Skoll Foundation. 2005. http://www.skollfoundation.org. Date of access: 10th October 2018.

Smallbone, D., Evans, M., Ekanem, I., & Butters, S. 2001. *Researching social enterprise: Final report to the small business service. Centre for Enterprise and Economic Development Research,* Middlesex University Business School, London: Middlesex University.

Stam, E. & Van Stel, A. 2011. Types of entrepreneurship and economic growth. (*In* Szirmai, A. Naudé, W. & Goedhuys, M. Entrepreneurship, Innovation, and Economic Development, 2011 ed. New York: Oxford press. p. 78–95).

Statistics Solutions. 2013. Confirmatory factor analysis http://www.statisticssolutions.com/academic-solutions/resources/directory-of-statistical-analyses/confirmatory-factor-analysis/. Date of access: 04 June 2018.

Statistics South Africa. 2017. Mid-year population estimates. http//:www.statssa.gov.za. Date of access: 13 August 2018.

Stevenson H.H, Jarillo J.C. 1990. A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal, Summer Special Issue* 11(1):17-27.

Stewart, W. H., Jr & Roth, P.L. 2001. Risk propensity differences between entrepreneurs and managers: a meta-analytic review. *Journal of Applied Psychology,* 86:145–153.

Sud, M., VanSandt, C.V. & Baugous, A.M. 2009. Social entrepreneurship: The role of institutions. *Journal of Business Ethics*, 85(1):201–216.

Sutton, J. 1997. Gibrat's legacy, *Journal of Economic Literature*, 35(1):40–59.

Swope, K.J., Cadigan, J., Schmitt, P.M. & Shupp, R. 2008. Personality preferences in laboratory economics experiments. *Journal of Socio-Economics*, 37(1):998–1009.

Symonds, J.E. & Gorard, S. 2010. Deaths of mixed methods? Or rebirth of research as craft. *Evaluation and Research in Education,* 23(2):121–136.

Tan, W.L., Williams J. & Tan, T.M. 2005. Defining the 'social' in "social entrepreneurship": altruism and entrepreneurship. *Entrepreneurship Management Journal*. 1(3):353–365.

Tang, J., Kacmar, K.M.M. & Busenitz, L. 2012. Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1):77–94.

Teixeira, A.A. & Forte, R.P. 2009. Unbounding entrepreneurial intents of university students: a multidisciplinary perspective. FEP Working papers No. 322 Faculdade de Economia do Porto: Universida de Do Porto. https://ideas.repec.org/p/por/fepwps/322.html. Date of access: 10th October 2018.

Thompson, J., Alvy, G. & Lees, A. 2000. Social entrepreneurship–a new look at the people and the potential. *Management Decision*, 38(5):328–338.

Thompson, J. & Doherty, B. 2006. The diverse world of social enterprise: A collection of social enterprise stories. *International Journal of Social Economics*, 33(5&6):361–375.

Tiwari, P., Bhat, A.K. & Tikoria, J. 2017. An empirical analysis of the factors affecting social entrepreneurial intentions. *Journal of Global Entrepreneurship Research,* 7(1):9. doi:10.1186/s40497-017-0067-1

Toma, S.G., Grigore, A.M. & Marinescu, P. 2014. Economic development and entrepreneurship. *Procedia Economics and Finance*, 8(1):436–443.

Tracey, P. & Phillips, N. 2007. The distinctive challenge of educating social entrepreneurs: a postscript and rejoinder to the special issue on entrepreneurship education. *Academy of Management Learning & Education*, 6(2):264–271.

Trim, P.R. & Lee, Y. 2004. Enhancing customer service and organizational learning through qualitative research. *Qualitative Market Research*, 7(4):284–292.

Tukamushaba, E., Orobia, L. & George, B. 2011. Development of a conceptual model to understand international social entrepreneurship and its application in the Ugandan context. *Journal of International Entrepreneurship*, 9(4):282–298.

Turker, D. & Sonmez Selçuk, S. 2009. Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2):142-159.

Twenge, J.M. 2010. A review of the empirical evidence on generational differences in work attitudes. *Journal of Business and Psychology*, *25*(2):201-210.

Ullman, J.B. 2006. Structural equation modelling: reviewing the basics and moving forward. *Journal of Personality Assessment*, 87(1):35–50.

Ullman, J.B. & Bentler, P.M. 2012. Structural equation modelling. *(In* Weiner I. B. Handbook of Psychology. 2nd ed. New York: John Wiley & Sons. *p. 661-690*).

Urban, B. 2008. Social entrepreneurship in South Africa: delineating the construct with associated skills. *International Journal of Entrepreneurial Behaviour & Research*, 14(5):346–364.

Urban, B. & Teise, H. 2015. Antecedents to social entrepreneurship intentions: an empirical study in South Africa. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 24(2):36–52.

Uygun, R. & Kasimoglu, M. 2013. The emergence of entrepreneurial intentions in indigenous entrepreneurs: the role of personal background on the antecedents of intentions. *International Journal of Business and Management*, 8(5):24–40.

Van Praag, C.M. 1999. Some classic views on entrepreneurship. *De Economist*, 147(3):311-335.

Van Praag, C.M. & Versloot, P.H. 2007. What is the value of entrepreneurship? A review of recent research. *Small Business Economics,* 29(4):351-382.

Veciana, J.M. 2007. Entrepreneurship as a scientific research programme. *(In* Entrepreneurship. Berlin/Heidelberg: Springer. p. 23–71).

Velicer, W.F. & Fava, J.L. 1998. Effects of variable and subject sampling on factor pattern recovery. *Psychological Methods*, 3(2):231–251.

Venkataraman, S. 1997. The distinctive domain of entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth*, 3(1):119–138.

Vermeulen, P. 2018. How fat is the top tail of the wealth distribution? *Review of Income and Wealth,* 64(2), 357-387.

Visser, K. 2011. Social entrepreneurship in South Africa: context, relevance and extent. *Industry and Higher Education,* 25(4):233-247.

Viviers, S., Venter, C., & Solomon, G. 2012. South African university student's intentions to establish social enterprises. https://scholar.sun.ac.za/handle/10019.1/81935. Date of Access: 12th November 2015.

Von Eye, A. & Schuster, C. 1998. *Regression analysis for social sciences*. California: Harcourt Brace & Company, Academic press.

Waddock, S.A. & Post, J.E. 1991. Social entrepreneurs and catalytic change. *Public Administration Review,* 51(5):393–401.

Wagner, C., Kawulich, B. & Garner, M. (Eds.). 2012. *Doing social research: A global context.* McGraw-Hill Higher Education.

Wang, W., Lu, W. & Millington, J.K. 2011. Determinants of entrepreneurial intention among college students in China and USA. *Journal of Global Entrepreneurship Research*, 1(1):35–44.

Weber, E.U., Blais, A.R. & Betz, N.E. 2002. A domain-specific risk-attitude scale: -measuring risk perceptions and risk behaviours. *Journal of Behavioural Decision M*aking, 15(4):263–290.

Webster, J. & Watson, R.T. 2002. Analysing the past to prepare for the future: Writing a literature review. *MIS Quarterly*, 26(2): xiii-xxiii.

Weerawardena, J. & Mort, G.S. 2006. Investigating social entrepreneurship: a multidimensional model. *Journal of World Business*, 41(1):21–35.

Weerawardena, J. & Sullivan Mort, G. 2001. Learning, innovation and competitive advantage in not-for-profit aged care marketing: a conceptual model and research propositions. *Journal of Non-profit & Public Sector Marketing*, 9(3):53–73.

Wennekers, S. & Thurik, R. 1999. Linking entrepreneurship and economic growth. *Small Business Economics*, 13(1):27–56.

Winter, G. 2000. A comparative discussion of the notion of validity in qualitative and quantitative research. *The Qualitative Report*, 4(3):1–14.

Worthington, R.L. & Whittaker, T.A. 2006. Scale development research: a content analysis and recommendations for best practices. *The Counselling Psychologist*, 34(6):806–838.

Wry, T. & York, J.G. 2017. An identity-based approach to social enterprise. *Academy of Management Review*, 42(3):437- 460. doi:10.5465/amr.2013.0506

Yang, K. 2010. *Making sense of statistical methods in social Research*. Los Angeles: Sage.

Yang, R., Meyskens, M., Zheng, C. & Hu, L. 2015. Social entrepreneurial intentions: China versus the USA–Is there a difference? *The International Journal of Entrepreneurship and Innovation*, 16(4):253–267.

Yong, A.G. & Pearce, S. 2013. A beginner's guide to factor analysis: focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psych*ology, 9(2):79–94.

Young, D. 1983. *If not for profit, for what? A behavioural theory of the non-profit sector based on entrepreneurship.* Lexington, MA: Lexington Books.

Young, D.R., & Lecy, J.D. 2014. Defining the universe of social enterprise: Competing metaphors. *Voluntas,* 25(1):1307–1332.

Yunus, M. 2007. *Creating a world without poverty: social business and the future of capitalism.* New York: Public Affairs Books.

Zabarankin, M., Pavlikov, K. & Uryasev, S. 2014. Capital asset pricing model (CAPM) with drawdown measure. *European Journal of Operational Research*, 234(2):508–517.

Zahra, S.A., Gedajlovic, E., Neubaum, D.O. & Shulman, J.M. 2009. A typology of social entrepreneurs: motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5):519–532.

Zhang, Z., Zyphur, M.J., Narayanan, J., Arvey, R.D., Chaturvedi, S., Avolio, B.J., ... & Larsson, G. 2009. The genetic basis of entrepreneurship: effects of gender and personality. *Organizational Behaviour and Human Decision Processes*, 110(2):93–107.

Zhao, H. & Seibert, S.E. 2006. The Big Five personality dimensions and entrepreneurial status: meta-analytical review. *Journal of Applied Psychology*, 91(2):259–271.

Zhao, H., Seibert, S.E. & Lumpkin, G.T. 2010. The relationship of personality to entrepreneurial intentions and performance: a meta-analytic review. *Journal of Management*, 36(2):381–404.

Ziegler, R. 2009. "Introduction: voices, preconditions, contexts". *(In* Ziegler, R. (Ed.), An Introduction to Social Entrepreneurship: Voices, Preconditions, Contexts, Edward Elgar, Cheltenham, pp. 1-20).

Zikmund, W.G. 2003. *Customer relationship management: Integrating marketing strategy and information technology*. Texas, USA. Wiley

Zikmund, W.G., Babin, B.J., Carr, J.C. & Griffin, M. 2012. *Business research methods*. Mason, Ohio: Cengage Learning.

Zimmer, A. & Bräuer, S. 2014. The development of social entrepreneurs in Germany. Münster: Institut für Politikwissenschaften. http://www.uni-muenster.de. Date of access: 06th November 2018.

Zott, C. & Amit, R. 2008. The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1):1-26.

ANNEXURE

RESEARCH QUESTIONNAIRE

ANTECEDENTS TO SOCIAL ENTREPRENEURIAL INTENTIONS AMONG GENERATION Y UNIVERSITY STUDENTS IN SOUTH AFRICA

Dear student

My name is **Eleanor Meda Chipeta** a PhD student at the North-West University (Vaal campus). The purpose of my study is to investigate the antecedents to social entrepreneurial intentions among Generation Y university students. Unlike commercial entrepreneurs, social entrepreneurs aim at serving the basic human needs and impact on the quality of life among the poor people in society.

Thank you very much for your participation in this study on career decisions. We are very grateful and highly appreciate your time and effort invested in answering the upcoming questions. In total, answering the questions will take 30 to 40 minutes. There are no right and wrong answers. Thus, just choose the option that is the most appropriate for you. We thank you yet again for your participation! Your valuable responses will help us enormously to deepen our knowledge and advance research on career intentions.

This questionnaire is strictly for academic research purposes, as a result, your anonymity is guaranteed as you do not have to provide your name. All information provided will be treated in strict confidence.

Please read the instructions to each section carefully and respond appropriately. Kindly, complete this questionnaire as honestly and accurately as possible. Make sure to read all the items and instructions carefully and answer all questions.

Kindly, use either a BLACK OR BLUE coloured pen when you complete.

Thank you.

Eleanor Meda Chipeta
Email: medachipeta@hotmail.com
Cell: 0738247261

SECTION 1: SOCIODEMOGRAPHIC VARIABLES

Please answer the following questions by CIRCLING the appropriate option:

1.	Gender	Male			Female	
2.	Age					
3.	Nationality	South African			Other	
4.	Designated group	Black/African	White	Coloured	Indian	Chinese
		Other (Specify):				
5.	Level of Education	Under graduate	Honours	Masters	PhD	Other
6.	Field of study	Economic Sciences	Psychology	Humanities	Education	IT	Engineering
		Other (Specify):				

SECTION 2: SOCIAL ENTREPRENEURIAL INTENTIONS SCALE

The following statements focus on a career as a so-called social entrepreneur. A social entrepreneur runs a company (the social enterprise), which has a social mission besides its financial goals. This means that the goal is the combat of a certain social problem, e.g., poverty

I have the intention to found an enterprise that…		Not at all		More or less			Very much	
7.	…is dedicated to discovering new ways to solve problems in society (e.g. poverty, no or limited access to education and healthcare).	1	2	3	4	5	6	7
8.	…addresses social problems that have not been solved so far	1	2	3	4	5	6	7
9.	…combines an aspiration to solve social problems with an elaborated income strategy.	1	2	3	4	5	6	7
10.	…has a social mission (e.g. reducing poverty, improving education, helping disadvantaged people).	1	2	3	4	5	6	7
11.	…combines a social mission and an elaborated income strategy.	1	2	3	4	5	6	7
12.	…acts innovatively to solve problems in society.	1	2	3	4	5	6	7

The following statements focus on a career as a so-called social entrepreneur. A social entrepreneur runs a company (the social enterprise), which has a social mission besides its financial goals. This means that the goal is the combat of a certain social problem, e.g., poverty								
I have the intention to found an enterprise that…		Not at all		More or less			Very much	
13.	…is persistently looking for new opportunities and resources to fulfil its social mission	1	2	3	4	5	6	7
14.	…needs to deal with tensions arising from social and financial goals.	1	2	3	4	5	6	7
15.	…develops services or products serving a social purpose.	1	2	3	4	5	6	7

SECTION 3: SOCIAL ENTREPRENEURIAL INTENTIONS

The following statements focus on a career as a so-called social entrepreneur. This goal is pursued within the context of the company, e.g., by integrating affected groups into the business model. Nonetheless, it is a business and not a voluntary service, as revenues are achieved, and the business act competitively on a market. Due to this perspective, decisions are always made in favour of the social cause in focus – even if it means lower revenues or wages.								
		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
16.	Being a social entrepreneur implies more advantages than disadvantages to me	1	2	3	4	5	6	7
17.	A career as a social entrepreneur is attractive for me	1	2	3	4	5	6	7
18.	If I had the opportunity and resources, I would like to start a social enterprise	1	2	3	4	5	6	7
19.	Being a social entrepreneur would entail great satisfactions for me	1	2	3	4	5	6	7
20.	Among various options, I would rather be a social entrepreneur	1	2	3	4	5	6	7
If you decided to create a social enterprise, would people in your close environment approve of that decision?								
21.	Your close family	1	2	3	4	5	6	7
22.	Your friends	1	2	3	4	5	6	7
23.	Your fellow students	1	2	3	4	5	6	7
24.	Your colleagues	1	2	3	4	5	6	7
To what extent do you agree with the following statements regarding your entrepreneurial capacity?								

The following statements focus on a career as a so-called social entrepreneur. This goal is pursued within the context of the company, e.g., by integrating affected groups into the business model. Nonetheless, it is a business and not a voluntary service, as revenues are achieved, and the business act competitively on a market. Due to this perspective, decisions are always made in favour of the social cause in focus – even if it means lower revenues or wages.								
		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
25.	To start a social enterprise and keep it working would be easy for me	1	2	3	4	5	6	7
26.	I am prepared to start a social enterprise	1	2	3	4	5	6	7
27.	I can control the creation process of a new social enterprise	1	2	3	4	5	6	7
28.	I know the necessary practical details to start a social enterprise	1	2	3	4	5	6	7
29.	I know how to develop a social entrepreneurial project	1	2	3	4	5	6	7
30.	If I tried to start a social enterprise, I would have a high probability of succeeding	1	2	3	4	5	6	7

SECTION 4: SOCIAL ENTREPRENEURIAL ANTECEDENTS

Please note that socially disadvantaged or marginalised people include for example people with disabilities, people in extreme poverty, people who are discriminated against, people dealing with long-term unemployment, or Immigrant-youth struggling to feel they are a part of society.						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
31.	I am convinced that I personally can make a contribution to address societal challenges if I put my mind to it.	1	2	3	4	5
32.	I could figure out a way to help solve the problems that society faces.	1	2	3	4	5
33.	Solving societal problems is something to which each of us can contribute.	1	2	3	4	5
34.	I do not believe it would be possible for me to bring about significant social change.	1	2	3	4	5
35.	It is possible to attract investors for an organisation that wants to solve social problems.	1	2	3	4	5

Please note that socially disadvantaged or marginalised people include for example people with disabilities, people in extreme poverty, people who are discriminated against, people dealing with long-term unemployment, or Immigrant-youth struggling to feel they are a part of society.						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36.	People would support me if I wanted to start an organisation to help socially marginalised people.	1	2	3	4	5
37.	If I planned to address a significant societal problem, people would back me up.	1	2	3	4	5
38.	I do not expect that I would receive much support if I were to start a social enterprise.	1	2	3	4	5
39.	When thinking about socially disadvantaged people, I try to put myself in their shoes.	1	2	3	4	5
40.	I do not care how people feel who live on the margins of society.	1	2	3	4	5
41.	Seeing socially disadvantaged people triggers an emotional response in me.	1	2	3	4	5
42.	I do not experience much emotion when thinking about socially excluded people.	1	2	3	4	5
43.	I feel compassion for socially marginalised people.	1	2	3	4	5
44.	I find it difficult to feel compassionate for people less fortunate than myself.	1	2	3	4	5
45.	It is an ethical responsibility to help people less fortunate than ourselves.	1	2	3	4	5
46.	We are morally obliged to help socially disadvantaged people.	1	2	3	4	5
47.	Social justice requires that we help those who are less fortunate than we are.	1	2	3	4	5
48.	It is one of the principles of our society that we should help socially disadvantaged people.	1	2	3	4	5

SECTION 5a: PORTRAIT VALUE – MALE VERSION

This section must only be answered by MALE participants ONLY.							
		Not like me at all		Like me		Very much like me	
49.	Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	1	2	3	4	5	6
50.	It is important to him to be rich. He wants to have a lot of money and expensive things.	1	2	3	4	5	6
51.	He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.	1	2	3	4	5	6
52.	It is important to him to show his abilities. He wants people to admire what he does.	1	2	3	4	5	6
53.	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	1	2	3	4	5	6
54.	He likes surprises and is always looking for new things to do. He thinks it is important to do many different things in life.	1	2	3	4	5	6
55.	He believes that people should do what they are told. He thinks people should follow rules at all times, even when no one is watching.	1	2	3	4	5	6
56.	It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	1	2	3	4	5	6
57.	It is important to him to be humble and modest. He tries not to draw attention to himself.	1	2	3	4	5	6
58.	Having a good time is important to him. He likes to "spoil" himself.	1	2	3	4	5	6
59.	It is important to him to make his own decisions about what he does. He likes to be free and not depend on others.	1	2	3	4	5	6
60.	It is very important to him to help the people around him. He wants to care for their well-being.	1	2	3	4	5	6
61.	Being very successful is important to him. He hopes people will recognise his achievements.	1	2	3	4	5	6
62.	It is important to him that the government ensures his safety against all threats. He wants the state to be strong so it can defend its citizens.	1	2	3	4	5	6

This section must only be answered by MALE participants ONLY.							
		Not like me at all		Like me		Very much like me	
63.	He looks for adventures and likes to take risks. He wants to have an exciting life.	1	2	3	4	5	6
64.	It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	1	2	3	4	5	6
65.	It is important to him to get respect from others. He wants people to do what he says.	1	2	3	4	5	6
66.	It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	1	2	3	4	5	6
67.	He strongly believes that people should care for nature. Looking after the environment is important to him.	1	2	3	4	5	6
68.	Tradition is important to him. He tries to follow the customs handed down by his religion or his family.	1	2	3	4	5	6
69.	He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	1	2	3	4	5	6

SECTION 5b: PORTRAIT VALUE – FEMALE VERSION

This section must only be answered by FEMALE participants ONLY.							
		Not like me at all		Like me		Very much like me	
70.	Thinking up new ideas and being creative is important to her. She likes to do things in her own original way.	1	2	3	4	5	6
71.	It is important to her to be rich. She wants to have a lot of money and expensive things.	1	2	3	4	5	6
72.	She thinks it is important that every person in the world should be treated equally. She believes everyone should have equal opportunities in life.	1	2	3	4	5	6
73.	It is important to her to show her abilities. She wants people to admire what she does.	1	2	3	4	5	6

This section must only be answered by FEMALE participants ONLY.							
		Not like me at all		Like me		Very much like me	
74.	It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.	1	2	3	4	5	6
75.	She likes surprises and is always looking for new things to do. She thinks it is important to do many different things in life.	1	2	3	4	5	6
76.	She believes that people should do what they are told. She thinks people should follow rules at all times, even when no one is watching.	1	2	3	4	5	6
77.	It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.	1	2	3	4	5	6
78.	It is important to her to be humble and modest. She tries not to draw attention to herself.	1	2	3	4	5	6
79.	Having a good time is important to her. She likes to "spoil" herself.	1	2	3	4	5	6
80.	It is important to her to make her own decisions about what she does. She likes to be free and not depend on others.	1	2	3	4	5	6
81.	It is very important to her to help the people around her. She wants to care for their well-being.	1	2	3	4	5	6
82.	Being very successful is important to her. She hopes people will recognise her achievements.	1	2	3	4	5	6
83.	It is important to her that the government ensures her safety against all threats. She wants the state to be strong so it can defend its citizens.	1	2	3	4	5	6
84.	She looks for adventures and likes to take risks. She wants to have an exciting life.	1	2	3	4	5	6
85.	It is important to her to always behave properly. She wants to avoid doing anything people would say is wrong.	1	2	3	4	5	6
86.	It is important to her to get respect from others. She wants people to do what she says.	1	2	3	4	5	6
87.	It is important to her to be loyal to her friends. She wants to devote herself to people close to her.	1	2	3	4	5	6
88.	She strongly believes that people should care for nature. Looking after the environment is important to her.	1	2	3	4	5	6

This section must only be answered by FEMALE participants ONLY.							
		Not like me at all		Like me		Very much like me	
89.	Tradition is important to her. She tries to follow the customs handed down by her religion or his family.	1	2	3	4	5	6
90.	She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.	1	2	3	4	5	6

SECTION 6: DOMAIN-SPECIFIC RISK-TAKING

For each of the following statements, please indicate the likelihood that you would engage in the described activity or behaviour if you were to find yourself in that situation.								
		Extremely Unlikely	Unlikely	Slightly Unlikely	Neutral	Slightly Likely	Likely	Extremely Likely
Ethical Risk-Taking								
91.	Taking some questionable deductions on your income tax return.	1	2	3	4	5	6	7
92.	Having an affair with a married man/woman	1	2	3	4	5	6	7
93.	Passing off somebody else's work as your own.	1	2	3	4	5	6	7
94.	Revealing a friend's secret to someone else.	1	2	3	4	5	6	7
95.	Leaving your young children alone at home while running an errand.	1	2	3	4	5	6	7
96.	Not returning a wallet you found that contains $200	1	2	3	4	5	6	7
Investment Risk-Taking								
97.	Investing 10% of your annual income in a moderate growth diversified fund.	1	2	3	4	5	6	7
98.	Investing 10% of your annual income in a new business venture.	1	2	3	4	5	6	7
99.	Investing 5% of your annual income in a very speculative stock.	1	2	3	4	5	6	7

SECTION 7: PROACTIVE PERSONALITY

		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
100.	Wherever I have been, I have been a powerful force for constructive change.	1	2	3	4	5	6	7
101.	Nothing is more exciting than seeing my ideas turn into reality.	1	2	3	4	5	6	7
102.	If I see something I do not like, I fix it.	1	2	3	4	5	6	7
103.	I excel at identifying opportunities.	1	2	3	4	5	6	7
104.	I can spot a good opportunity long before others can.	1	2	3	4	5	6	7

SECTION 8: SELF-REPORT ALTRUISM SCALE

		Never		Neutral	Very often	
105.	I have made change for a stranger.	1	2	3	4	5
106.	I have given money to a charity.	1	2	3	4	5
107.	I have given money to a stranger who needed it (or asked me for it).	1	2	3	4	5
108.	I have donated goods or clothes to a charity.	1	2	3	4	5
109.	I have done volunteer work for a charity.	1	2	3	4	5
110.	I have bought ‘charity’ Christmas cards deliberately because I knew it was a good cause.	1	2	3	4	5

SECTION 9: ENTREPRENEURIAL INTENTIONS

Earlier you have answered questions on a career as a so-called social entrepreneur. Apart from this, also commercial entrepreneurs exist. A commercial entrepreneur will also compete on a market with innovative ideas – yet, his/her decisions will be focused on maintaining and growing the business. The central target of a commercial entrepreneur is making money.

Please keep these features of commercial entrepreneurs in mind when answering the following questions!

		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
111.	I am ready to do anything to be a commercial entrepreneur	1	2	3	4	5	6	7
112.	My professional goal is to become a commercial entrepreneur	1	2	3	4	5	6	7
113.	I will make every effort to start and run my own commercial enterprise	1	2	3	4	5	6	7
114.	I am determined to create a commercial enterprise in the future	1	2	3	4	5	6	7
115.	I have very seriously thought of starting a commercial enterprise	1	2	3	4	5	6	7
116.	I have the firm intention to start a commercial enterprise some day	1	2	3	4	5	6	7

SECTION 10: CRITERION VALIDATION

Finally, we would like to ask you a few questions on your knowledge about social entrepreneurs and your activity in this field.

117.		Not at all		More or less			Very Much	
118.	I had been familiar with the term "social entrepreneur" before participating in this study.	1	2	3	4	5	6	7
119.	I have heard of persons (e.g. Muhammad Yunus) and initiatives (e.g. Ashoka) in the field of social entrepreneurship.	1	2	3	4	5	6	7
120.	I know the target of microlending.	1	2	3	4	5	6	7
121.	I have invested time and effort to inform myself about a career as a social entrepreneur.	1	2	3	4	5	6	7

Finally, we would like to ask you a few questions on your knowledge about social entrepreneurs and your activity in this field.								
117.		Not at all		More or less			Very Much	
122.	I have already attended a course on social entrepreneurship (e.g. at school or university).	1	2	3	4	5	6	7
123.	I have already gained practical experience in the field of social entrepreneurship (e.g. during an internship).	1	2	3	4	5	6	7
124.	I have intensively thought about a business plan of my personal social enterprise.	1	2	3	4	5	6	7
125.	I have written or started to write a business plan for my personal social enterprise.	1	2	3	4	5	6	7

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE