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**Gordon Institute
of Business Science**
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**The Theory of Planned Behaviour as a Predictor of
Entrepreneurial Intention in the South African Jewish
Community**

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A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

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I. ABSTRACT

With soaring unemployment rates coupled with stifled growth and rising inequality, the economic outlook in South Africa is disheartening. Entrepreneurial activity is viewed as a catalyst of economic development, and as such, government and policy makers should be creating an environment in which the determinants of entrepreneurship can be fostered.

Entrepreneurial intention has been shown to be a leading indicator of future entrepreneurial activity. With an understanding of the links between entrepreneurial intention, entrepreneurial activity, and economic growth, it is clear that the South African economy faces a challenge; not only is economic development slow, but levels of entrepreneurial intention are low.

This research paper planned to study the significance of the Theory of Planned Behaviour through structural equation modelling, as a predictor of entrepreneurial intention within a sample that has previously received little attention, and is commonly known to produce numerous entrepreneurs including high impact entrepreneurs; the South African Jewish Community.

The results illustrate that the Theory of Planned Behaviour was a sound model with the sample data; however the Theory of Planned Behaviour did not provide a significant prediction of entrepreneurial intention within the South African Jewish Community.

Further analysis discovered that within the Jewish Community of South Africa, perceived behavioural control provided powerful predictive strength of entrepreneurial intention. Attitude toward the behaviour and subjective norms provided insignificant predictive strength of entrepreneurial intention.

II. KEYWORDS

- Entrepreneurship
- Entrepreneurial Intention
- Theory of Planned Behaviour
- South African Jewish Community

III. DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Date: 10 November 2014

Name: David Myers

Signature: _____

IV. DEDICATION

This research report is dedicated to Dr. Allan Wulfsohn, a role model and gentleman in every sense of the word. His memory and principles will live with me forever.

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VIII. LIST OF ACRONYMS

NDP	National Development Plan
GDP	Gross Domestic Product
IMF	International Monetary Fund
GEM	Global Entrepreneurship Monitor
SEE	Shapiro's Entrepreneurial Event
TPB	Theory of Planned Behaviour
GIBS	Gordon Institute of Business Science

1. Chapter One – Introduction

1.1 Chapter Introduction

The South African government recently embarked on its long term strategic National Development Plan (NDP) which outlines amongst others, three primary objectives that apply to all South Africans. The plan aims to create a country where no citizen goes hungry and where jobs are available to the people, while doubling Gross Domestic Product (GDP) by 2030 (National Planning Commission, 2011). Although these goals are admirable and idealistic, the reality of the South African economic outlook indicates the seriousness of the task ahead.

Over the last 20 years, South African GDP has grown at a modest 2.6% while unemployment is common in a nation where the official unemployment rate currently is 24.7% of the total labour force (Statistics South Africa, 2014). Inequality, which according to the International Monetary Fund (IMF), has an inverse relationship with economic growth. This was last measured in South Africa in 2009 and ranked the highest in the world at 63 (Inman, 2014; World Bank, 2014a).

The World Bank (2014) predicted modest growth of 2.3% for South Africa in 2014, yet was recently forced to reduce their forecast to 2%. This occurred as a result of an inadequate electricity infrastructure, restrictive monetary policy, and labour strikes which of late produced a strike by seventy thousand mining workers lasting five months (World Bank, 2014b).

Entrepreneurial activity is considered to be fundamental for organic economic advancement, the creation of jobs and the relief of poverty in South Africa (Kroon, Klerk, & Dippenaar, 2003). This has been confirmed in that the correlation between entrepreneurial activity and economic

growth is greater than 70% (Xavier, Kelley, Kew, Herrington, & Vorderwülbecke, 2012).

At a macro level, entrepreneurship creates new business, which in turn creates jobs; allowing more people the opportunity to participate in the economy.

It is therefore no surprise that entrepreneurial activity has been recognised as a vital aspect in realising the goals of the NDP (National Planning Commission, 2011).

1.2 Entrepreneurial Activity

Entrepreneurship, and its effects on economic growth have generated an extensive literature with consistent findings that the consequences of entrepreneurship on economic growth are positive (Carree & Thurik, 2003). Romer (1994) further supported this by stating that entrepreneurial activity is the driver of a country's sustainable economic growth.

Despite substantial academic interest in the topic of entrepreneurship, the subject remains a difficult concept to define as none of the methods used provide an all-inclusive paradigm of the subject (Kobia & Sikalieh, 2010). As a result, many definitions exist, most of which according to Sharma and Chrisman (2007), rely heavily on two classic entrepreneurship definitions; those of Schumpeter (1934) and Gartner (1988).

While Schumpeter (1934) believed that entrepreneurship entailed executing innovative combinations of new products, services, processes and markets, to Gartner (1988), entrepreneurship was simply the creation of business (Gartner, 1988; Schumpeter, 1934).

These definitions have evolved over time, and for the purpose of the current research, entrepreneurship is defined according to Klapper and Love (2011) as “the activities of an individual or a group of people aimed at initiating economic activities in the formal sector under a legal form of business” (p. 6).

Nieman and Nieuwenhuizen (2009) explain that entrepreneurial activity includes 97.5% of all business in South Africa, contributes to 35% of GDP, and employs 55% of the formal sector. Henderson (2002) separates entrepreneurs into two categories, lifestyle entrepreneurs and high growth entrepreneurs. Lifestyle entrepreneurs initiate economic activity motivated by an income that can support a lifestyle and a family (Henderson, 2002). High growth entrepreneurs initiate economic activity motivated by growing an organisation that can increase in value and ultimately to list the organisation (Henderson, 2002).

It is these high growth entrepreneurs, referred to as high impact entrepreneurs by Morris (2011) in the Global Entrepreneurship Monitor (GEM) High-Impact Entrepreneurs Report, whose impact to an economy is more significant than others in that their contribution not only as entrepreneurial role models, but in terms of job creation and wealth creation is above average.

It is for this reason that understanding the attributes, features and traits of high impact entrepreneurs has become an important focus for researchers and policy makers alike with the aim of driving economic development (Morris, 2011).

As entrepreneurial activity contributes towards economic development, and more specifically, if high impact entrepreneurs contribute significantly to job creation and wealth creation, then government and policy makers should be creating an environment in which individuals are supported to

take part in entrepreneurial activity and ideally high impact entrepreneurial activity.

1.3 Entrepreneurial Intention

As a consequence of the convincing and positive relationship between entrepreneurial intention and entrepreneurial activity, research into entrepreneurial intention is fundamental to the efforts to increase entrepreneurial activity for economic development (Turton & Herrington, 2012).

Krueger, Reilly, and Carsrud (2000) stated that as behaviour has been empirically proven to be predicted best by intention, entrepreneurial activity can be predicted through the analysis of entrepreneurial intention. These authors further explain that by understanding the precursors to intention, a better understanding of the intended behaviour can be developed.

According to Turton and Herrington (2012), the average rate of entrepreneurial intention for efficiency driven economies is 27%. The average rate of entrepreneurial intention in South Africa for 2013 was 12%, below the 14% in 2012 and 18% in 2011 (Amoros & Bosma, 2013).

The 2012 South Africa GEM Report identifies and supports two models frequently used to investigate entrepreneurial intention. The first model is Shapero's Entrepreneurial Event (SEE) and the second model is the Theory of Planned Behaviour (TPB) (Turton & Herrington, 2012). The authors explain that both models propose that the entrepreneurial intention of an individual is determined by the individual's perception of the entrepreneurial activity to be desirable and feasible, personal to the individual.

Personal desirability is explained as whether individuals view entrepreneurship as a desirable occupation choice and is affected by social and cultural norms, while personal feasibility relates to the confidence of the individual to succeed as an entrepreneur (Turton & Herrington, 2012).

GEM further proposes that entrepreneurial intention is largely influenced through what is termed entrepreneurial framework conditions, and these are the both the cultural and social norms of an individual; which influence the appeal of entrepreneurship as an occupation choice, and education; which influences the feasibility for the individual (Amoros & Bosma, 2013).

1.4 The South African Jewish Community

Much discussion has been had surrounding ethnic entrepreneurship; the activities of an entrepreneurial nature performed by individuals that are linked to a common cultural heritage and who form a minority of the population of a country (Altinay, 2008). However, little research exists regarding the South African Jewish Community; a community that arrived in South Africa over a century ago largely uneducated, and as a result were forced to generate wealth through entrepreneurial activity (Milner, 2013). This community which now constitutes amongst the most educated communities in South Africa (Milner, 2013).

The South African Jewish community, comprised of approximately 75 500 people according to Statistics South Africa (2011), has produced numerous successful entrepreneurs, many of whom are considered to be high-impact entrepreneurs, and this Jewish community is said to be amongst the most successful and wealthiest in the Jewish world (Board of Jewish Education, 2012).

When Makura (2010) compiled a list of the most successful South African entrepreneurs, the findings supported the general expectation of the high levels of entrepreneurial activity within the South African Jewish community. 80% of the most successful South African entrepreneurs were Jewish (Makura, 2010).

While the Jewish community of South Africa is commonly regarded to be entrepreneurial, it is important to note that many of these are high impact entrepreneurs who have made a significant contribution to the South African economy.

The list of high impact entrepreneurs from the South African Jewish community goes back as early as 1869 and 1873, when the Jewish Sammy Marks and Barney Barnato travelled to South Africa from London penniless in the diamond rush that followed the diamond discovery in Kimberley, and became millionaires within ten years by establishing some of the largest mining companies of their time (DITSONG: Museums of South Africa, 2001; South African History, 1997).

More recently, Adrian Gore, estimated in 2011 to be worth \$280 million, founded South Africa's largest medical aid scheme and transformed the medical landscape in South Africa (Discovery, 2014; Forbes, 2011).

A quick review of Jewish South African entrepreneurial activity indicates the extent to which this community has produced high impact entrepreneurs. Examples include the following. Sol Kerzner, a South African entrepreneur who created the most successful hotel group in South Africa, Sun International, was estimated to be worth \$400 million in 2010 (Forbes, 2014; Sun International, 2012).

Raymond Ackerman, a South African entrepreneur who has taken his business Pick n Pay to the pinnacle of the retail industry in South Africa, had a net worth of \$500 million in 2013 (Forbes, 2013; Pick n Pay, 2009).

Donald Gordon, a South African entrepreneur in the financial services and property industries founded Liberty Life, a leading financial services group in South Africa, was estimated to be worth \$2 billion in 2008 (Forbes, 2008; Liberty, 2014).

The contribution that these high-impact entrepreneurs have made to the South African economy, not only as entrepreneurial role models, but with respect to job creation and wealth creation is enormous, and it is for this reason that the attributes, features and traits of high-impact entrepreneurs should become an important focus for researchers and policy makers as recommended by Morris (2011).

1.5 Conclusion

With soaring unemployment, stifled growth and rising inequality, the South African economic outlook is disheartening. If entrepreneurial activity contributes towards economic development, and more specifically, if high impact entrepreneurs contribute significantly to job creation and wealth creation, then government and policy makers should be creating an environment in which the determinants of entrepreneurship and ideally high-impact entrepreneurship can be fostered.

With an understanding of the powerful impact entrepreneurial activity can have on economic development, together with an understanding of the clear link between entrepreneurial intention and entrepreneurial activity, it is clear that South Africa finds itself in a challenge; not only is economic development slow, but levels of entrepreneurial intention are low.

Government, policy makers and citizens should be interested in the determinants and influences of entrepreneurial intention as an

understanding of this could lead to policies and programmes that can develop entrepreneurial intention and in turn, entrepreneurial activity.

Little research has been employed to understand entrepreneurial intention of a community regarded to be highly entrepreneurial, moreover, a community that has produced a large amount of high-impact entrepreneurs. Through understanding the determinants of entrepreneurial intention of a community such as this, fostering of these determinants can take place, and as a result, economic development is possible.

2. Chapter Two - Literature Review

2.1 Chapter Introduction

The field of entrepreneurship has generated a vast body of research with various approaches and a range of findings. As the previous chapter identified the need to understand the determinants of entrepreneurial intention amongst the backdrop of the South African economic outlook, the purpose of this chapter is to review the literature and locate the area within which the current research belongs.

2.2 Entrepreneurship

The development of entrepreneurship theory has passed through five phases in which the research has been inspired by various literature including business management, economics, psychology and sociology (Sivarajah & Achchutan, 2013). The research has followed a path through which it has evolved through an economic view, a behaviourist perspective, a management science perspective, a social perspective and an entrepreneurship perspective (Nieman & Nieuwenhuizen, 2009).

This multi-faceted approach to entrepreneurship is considered to be a strength to the field as it has made use of theories and frameworks established in valid and established social science (Chandler & Lyon, 2001), however, Shane and Venkataraman (2000) have urged academics to establish a structure that would offer the field a theory of its own.

The integration of various social science theories and frameworks into the field of entrepreneurship has resulted in a crowding of the literature with an assortment of definitions and approaches (Gartner, 1988). Meeks (2009)

notes sixty five differing definitions that have contributed to the literature which Gartner (1985) attributed to the differences in theoretical positions between researchers.

2.3 Defining Entrepreneurship

The word entrepreneur can be traced back to the French word *entrepender* which means to undertake when translated to English, and was first used by French economist Cantillon (1755). The word entrepreneur however, has provided an assortment of meanings over time. It has covered various themes and has been used to signify the reallocation of resources, a risk bearing nature, high growth objectives, innovation, opportunity recognition, and new venture creation (Gartner, 1988; Kirzner, 1973; Knight, 1921; Penrose, 1959; Say, 1858; Schumpeter, 1934).

If one looks at the vast array of definitions within the literature, for example Gartner (1988), the various connotations of the word entrepreneur indicate the definitional problem faced by researchers. Cantillon (1755) defined entrepreneurship as the bearing of risk in return for potential profits while operating under conditions of uncertainty. Since then, three common elements of entrepreneurship have emerged within the varying definitions; ownership of a firm, risk and uncertainty orientation, and the reallocation of resources (Low, 2009).

Prominent authors in the field have defined entrepreneurship as follows. Say (1858) viewed entrepreneurship as the actions of organising the factors of production. This definition was further developed by Knight (1921) who described entrepreneurship as the prediction and action upon change within the markets through the acceptance of risk and uncertainty.

Schumpeter (1934) viewed entrepreneurship as executing innovative combinations of new products, services, processes and markets. Drucker (1954) in line with this, explained that entrepreneurs innovate, defining entrepreneurship as an act which provides the market with a new capacity to generate wealth.

Kirzner (1973) viewed entrepreneurship in a similar vein to his predecessor Schumpeter (1934) with the opinion that entrepreneurship involved the actions of discovery and exploitation of market opportunities. Kirzner (1973) differed in that he viewed the market opportunities as being caused by previous market errors. Gartner's (1988) definition of entrepreneurship was simply the creation of business.

While the above definitions as established by prominent authors in the field of entrepreneurship are commonly used as a starting point, Sharma and Chrisman (2007) explain that most of the definitions in the field of entrepreneurship rely on both Schumpeter's (1934) definition that entrepreneurship entails executing innovative combinations of new products, services, processes, and markets, and Gartner's (1988) simple definition that entrepreneurship is the creation of business.

The definition of entrepreneurship for the purpose of the current research is defined according to Klapper and Love (2011) as “the activities of an individual or a group of people aimed at initiating economic activities in the formal sector under a legal form of business” (p. 6). This definition serves the current research as it is broad enough to include the three common elements that have emerged within the literature and reflects the current view of entrepreneurship.

2.4 Approaches to Entrepreneurship Research

Landstrom (2005) explains in a review of entrepreneurship literature that research in entrepreneurship, since its origins in 1755, has followed three principle approaches; entrepreneurship as a function of the economy, entrepreneurship as a process, and the approach in which the current research is situated; the entrepreneur as an individual.

2.4.1 Entrepreneurship as a Function of the Economy

In the approach of entrepreneurship as a function of the economy, the major theme has been the economic role of the entrepreneur (Landstrom, 2005). In this approach, the entrepreneur is an agent of the economy who discovers and exploits opportunities in the market in the pursuit of profit or rent (McStay, 2008).

Schumpeter (1934) explained entrepreneurship under this approach as new combinations of resources, resulting in either a new good, a new venture or a new market, and contributed to the economy in the form of profits. The concept of innovation introduced at this point has remained a central theme in the entrepreneurship literature (Turton & Herrington, 2012).

This approach to entrepreneurship, as a function of the economy, views entrepreneurship as a function and a product of the market (McMullen & Shepherd, 2006). It is primarily concerned with whether entrepreneurial activity occurs, and its contribution to the economy, with no attempt to understand the entrepreneur, the motivation of the entrepreneur nor the methods of the entrepreneur (McMullen & Shepherd, 2006).

2.4.2 Entrepreneurship as a Process

The second approach, analyses entrepreneurship with regards to the entrepreneurial process (Landstrom, 2005). The entrepreneurial process is separated into two sections in the literature; the process of creating a new venture, and the process of recognition, evaluation and exploitation of opportunities in the market (Landstrom, 2005).

McStay (2008) explains that several models exist in the literature to understand the processes involved in both the creation of new ventures, and in opportunity identification, evaluation and exploitation. The development of these models has seen an integration of the two sections, highlighting the interconnected processes as a chronology of the entrepreneurial process (Bygrave, 1993).

Four specific dimensions have been identified as contributing to the entrepreneurial process; the organisation, the environment, the process itself, and the individual (Gartner, 1985). A lack of understanding about the individual however, caused Gartner and Vesper (1994) to recognise an evident limitation in the research, which generated the third approach to entrepreneurship research, understanding the entrepreneur as an individual.

2.4.3 The Entrepreneur as an Individual

The third and most recent approach to the entrepreneurship literature; the entrepreneur as an individual, has placed the emphasis on the individual with the objective of understanding the actor of the entrepreneurial activity studied in the previous two approaches (McStay, 2008).

This approach has generated a vast body of research which is grouped in three streams of research; the trait approach, the behavioural approach, and the cognitive approach (McStay, 2008).

The Trait Approach

The trait approach to understanding the entrepreneur as an individual was demographically focussed and personality and characteristic based (Low & Macmillan, 1988). This research focussed on topics such as societal setting, personality traits, personal backgrounds and demographics to better understand the entrepreneur as an individual and to identify unique traits and characteristics of entrepreneurs (Davidsson, 1995).

This research offers various personality traits that are regarded as entrepreneurial traits. The entrepreneurial traits which dominate the literature can be traced back to Bygrave's (1989) model of entrepreneurial traits, and Robinson, Stimpson, Huefner and Hunt's (1991) list of entrepreneurial traits.

Bygrave (1989) viewed the fundamental entrepreneurial traits to include a tolerance for ambiguity, an internal locus of control, the need for achievement, and a risk taking propensity. Comparably, Robinson et al. (1991) viewed innovativeness, control, self-confidence and achievement as the fundamental entrepreneurial traits.

As early as 1988, it was expected that this research was approaching saturation point and that no new or relevant information would emerge (Gartner, 1988). An additional concern to the current research was a limitation that the research studied the demographics, personality, characteristics and traits of existing entrepreneurs as opposed to prospective entrepreneurs (Autio, Keeley, Klofsten, Parker, & Hay, 2001).

This assumed that entrepreneurial activity in itself did not alter the characteristics, personality and traits of the entrepreneur (Gartner, 1988).

Krueger et al. (2000) confirmed Gartner's (1988) expectation that the research was approaching saturation point, pointing out that the research had not provided any new or relevant information regarding entrepreneurial activity. Krueger et al. (2000) further claimed that the early trait research into the entrepreneur had provided insufficient descriptive results.

Smilor (1997) concurs with Krueger et al. (2000), stating that attempts predicting successful entrepreneurs using a multiplicity of traits had failed and as such, questions remain over the relevancy of such research.

Researchers have suggested for a more comprehensive method in order to capture a broader understanding of the entrepreneur as an individual, not limited to the traits of the entrepreneur (Gartner, 1988).

The Behavioural Approach

The behavioural approach to understanding the entrepreneur as the individual makes use of behavioural theory; the study of the observable and measurable behaviours of the individual (Robbins & Judge, 2012).

In an attempt to understand the behaviours of entrepreneurs, three central themes dominate the research; to describe the role played by the entrepreneur in the entrepreneurial process, the difference between successful and unsuccessful entrepreneurs in terms of their behaviour, and the difference between entrepreneurs and managers (McStay, 2008).

Although the behavioural approach has contributed significantly to the entrepreneurship literature, a clear limitation was that studies were undertaken on existing entrepreneurs rather than prospective

entrepreneurs. Researchers believed that a deeper understanding of the entrepreneur as an individual could only be developed through studying the unobservable behaviour of the entrepreneur (Mitchell, Busenitz, Bird, Gaglio, McMullen, Morse & Brock Smith, 2007).

Whilst the trait approach focussed on the demographics and personality of the entrepreneur, and the behavioural approach focussed on the actions of the entrepreneur, the cognitive approach focuses on the mental processing and thought patterns of the entrepreneur.

The Cognitive Approach

The cognitive approach has been identified as a significant approach for understanding events, trends and experiences in the entrepreneurship field (Mitchell et al., 2007). Cognitive models have provided more robust predictive power than previous approaches, garnering support for the cognitive approach (Gartner, 1985).

Entrepreneurial cognition has been expressed as the “knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth” (Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2002, p. 97).

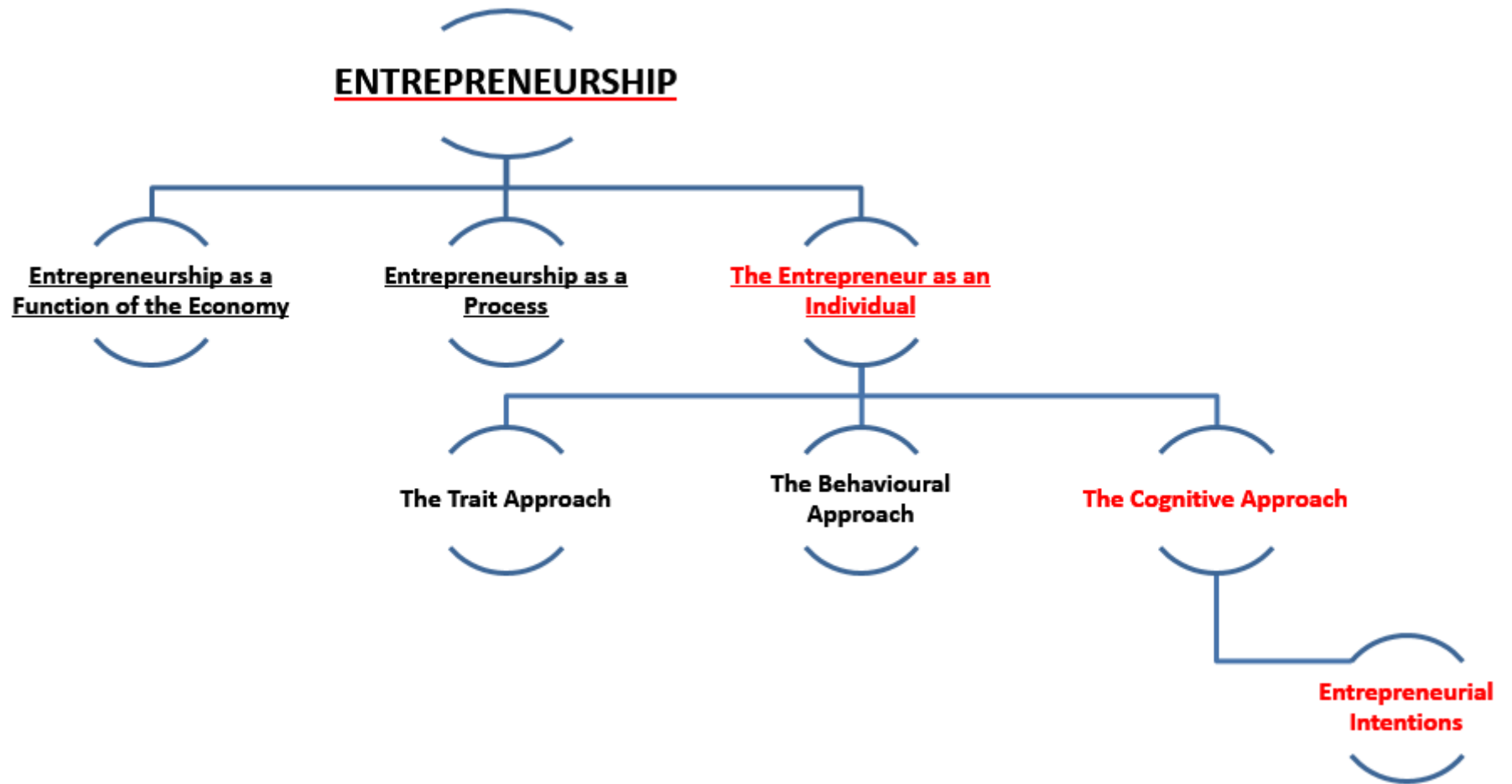
Whilst the intention of the cognitive approach is to improve the understanding around the mental processing and thought patterns of the entrepreneur, this approach recognises that entrepreneurs make use of cognitive factors such as beliefs and attitudes to act in a certain way (McStay, 2008).

This approach proposes that the mental processing and thought patterns of the entrepreneur are different to those of the non-entrepreneur (Mitchell et al., 2002), which has given rise to a stream of research dominating the

literature in an attempt to explain why some individuals as opposed to others turn out to be entrepreneurs (Mitchell et al., 2007). Within this stream of research lies the literature pertaining to entrepreneurial intention.

The focus of the current research falls within the approach of the entrepreneur as the individual, using the cognitive approach to better understand entrepreneurial intention, specifically in the South African Jewish community, a community commonly regarded to be entrepreneurial (see Figure 2-1).

Figure 2-1: The location of the current research in the field of entrepreneurship



2.5 Entrepreneurial Intention

In line with the literature pertaining to entrepreneurship, the literature pertaining to entrepreneurial intention is crowded with many definitions as can be seen in Krueger et al. (2000). While Kolvereid (1996) defined entrepreneurial intention as the intent of the individual to be self-employed, Krueger and Brazeal (1994) view entrepreneurial intention as the intent of the individual to launch a new venture.

Intent is defined by Bird (1992) as a cognitive process that motivates someone to allocate resources to, acquire knowledge of, and concentrate action toward a particular behaviour. Thus, following the definition of entrepreneurship used for the current research, entrepreneurial intention can be defined as the cognitive process that motivates someone to allocate resources to, acquire knowledge of, and concentrate behaviour toward “initiating economic activities in the formal sector under a legal form of business” (Klapper & Love, 2011, p. 6).

The study of entrepreneurial intention began using the trait approach to understanding the entrepreneur as an individual. The limitations of the trait approach motivated Davidsson (1995) to develop an economic-psychological model of factors that could understand entrepreneurial intention. The model included six components; the personal background, the general attitudes, the domain attitudes, the conviction, the intention, and the situation of the individual (Davidsson, 1995).

Autio et al. (2001) point out that entrepreneurial research at this time began to access psychological literature in order to understand predictors of entrepreneurship, a planned behaviour, and although theories of intention had been developed prior, intention was found to be the strongest indicator of a planned behaviour.

Psychological literature had determined that intention is the best predictor of planned behaviour, specifically when the behaviour in question is rare, hard to observe and involves unpredictable time lags (Krueger et al., 2000). Considering that entrepreneurial activity occurs over time and involves substantial effort, Bird (1988) agrees with Katz and Gartner (1988), who state that entrepreneurship is precisely the type of planned behaviour applicable to and appropriate for intention models.

The intention models developed to explain entrepreneurial intention according to Krueger et al. (2000) are useful in that they explain how factors relating to the situation - such as social, cultural and financial support - or the individual - such as traits, demographics and skills - which are exogenous in nature cannot be examined in isolation, and that they are interconnected, and when examined together can provide descriptive results.

Krueger et al. (2000) continue to explain that exogenous factors influence the planned behaviour via the attitude of the individual which in turn influences the intention to behave.

Krueger et al. (2000) stated that a person's intention to initiate economic activities provide an explanation as to why entrepreneurs decide to actually initiate economic activity. This statement was later proven by Gartner (1988), who found that the principal indicator of potential entrepreneurial activity was entrepreneurial intention.

Turton and Herrington (2012) in the 2012 GEM South Africa Report identified and support two models frequently used to investigate entrepreneurial intention. These two models have dominated recent literature as both models boast empirical evidence as strong predictors of entrepreneurial intention (Van Gelderen et al., 2008).

The first model is Shapero and Sokol's (1982) SEE, in which the entrepreneurial intention of an individual is influenced by three factors; desirability, feasibility, and the propensity to act of the individual. Desirability refers to the appealing features of entrepreneurship, and feasibility signifies the degree to which the individual perceives their capability of engaging in entrepreneurial activity (Shapero & Sokol, 1982). The propensity to act of the individual, according to Shapero and Sokol (1982), signifies the nature of the individual to act as a result of their decisions.

The second, more recent and comparable model, is the TPB in which an individual's behavioural intention is influenced by three factors; the individual's attitude toward the behaviour, subjective norms and perceived behavioural control (Ajzen, 1991). Attitude toward the behaviour, according to Ajzen (1991), indicates the individual's overall evaluation of the behaviour. Ajzen (1991) explains subjective norm as the individual's perception of societal pressure to perform the behaviour, and further describes perceived behavioural control as the extent to which the individual feels capable of the behaviour.

Krueger et al. (2000) recognised the common theme between these two models in a study comparing them, and concluded that both models are effective in predicting entrepreneurial intention. Van Gelderen et al. (2008) argued however, that the specifications of the SEE are confusing while the TPB offers thorough and reliable specifications as the model has been subjected to comprehensive research.

The current literature is dominated with studies applying the TPB to determine entrepreneurial intention within a sample with unknown entrepreneurial activity. For this reason, the current study will use the TPB rather than the SEE for the purpose of the current research. This decision

is further supported by Krueger and Carsrud (1993) who stated that the TPB allows for a testable and theory driven method to be used.

2.6 Theory of Planned Behaviour

Behaviour, according to Ajzen (1991), can be predicted by intention, the central concept in the TPB, and is the individual's intention to perform that specific behaviour. Ajzen (1991) continues to explain that as intention encapsulates all motivation that leads to behaviour; as the intention to carry out a specific behaviour intensifies, the higher the probability that the behaviour will occur.

In the context of this study, that behaviour is the behaviour of entrepreneurial activity, and is defined above as "initiating economic activities in the formal sector under a legal form of business" (Klapper & Love, 2011, p. 6).

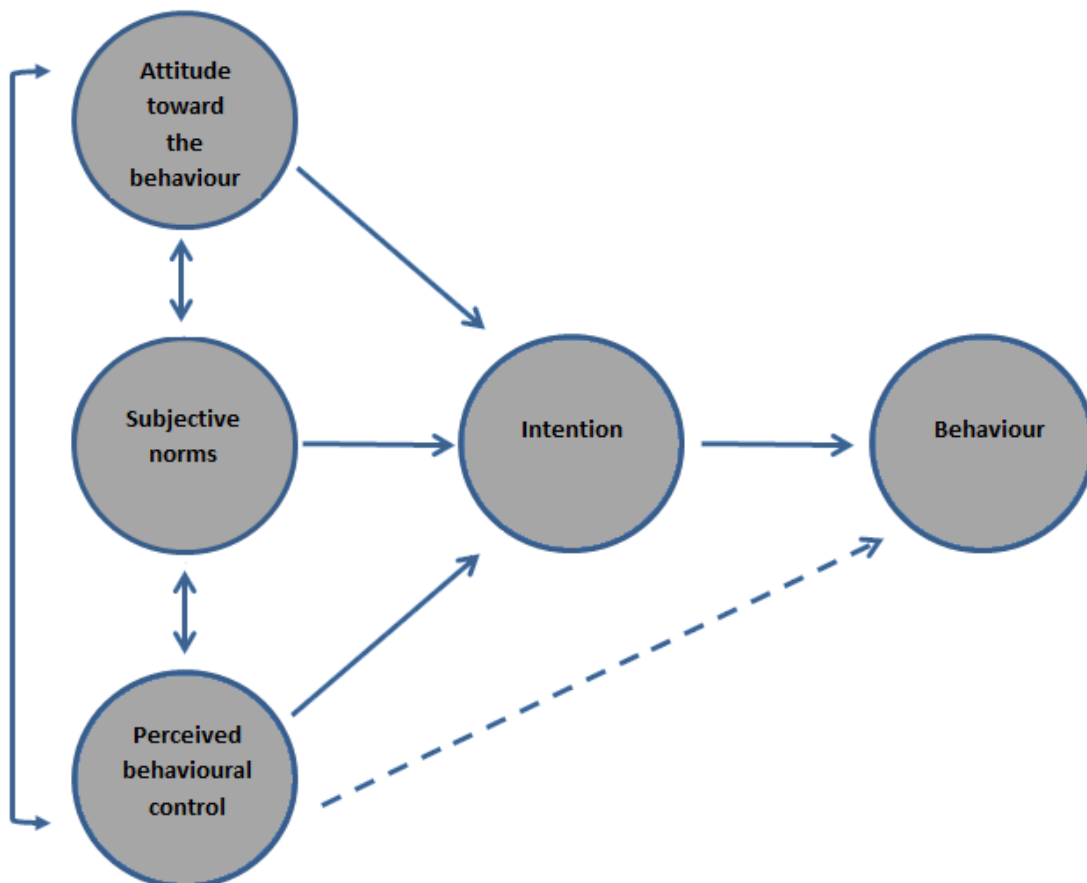
The TPB is suitable for examining the behaviour of entrepreneurial activity, as this behaviour is not only intentional, but also planned (Autio et al., 2001; Krueger & Carsrud, 1993). Autio et al. (2001) further supports the TPB as appropriate to understanding entrepreneurial activity for two specific reasons. The first supporting reason being that the behaviour of entrepreneurial activity occurs in a situation in which the individual acts with complete volitional control (Autio et al., 2001). The second supporting reason is that the TPB model manages to moderate the exogenous factors involved in entrepreneurial activity (Autio et al., 2001).

The TPB identifies three components, which function as precursors to intention; the attitude toward the behaviour, subjective norm, and perceived behavioural control (Ajzen, 1991). Ajzen (1991) emphasizes that the

relative significance of each of these precursors will vary for different behaviours and settings (Ajzen, 1991).

Ajzen (1991) continues to explain that a lack of predictive ability indicates that for a specific behaviour in a specific population, certain components of the TPB are not important considerations in the formation of intention (Ajzen, 2011). The components of the TPB will be explored in the following section (see Figure 2-2).

Figure 2-2: Theory of Planned Behaviour (Ajzen, 1991)



2.6.1 Components of the Theory of Planned Behaviour

The first precursor to intention is the attitude toward the behaviour component (Ajzen, 1991). Attitude toward the behaviour is the function of an individual's significant behavioural beliefs, and indicates the individual's overall evaluation of the behaviour (Ajzen, 1991). These attitudes are developed from the individual's beliefs around the purpose of the attitude, entrepreneurial activity in this case; and the attributes linked to it which are either respected or disrespected (Ajzen, 1991). These beliefs cause an attitude that is either positive, neutral, or negative towards the behaviour (Ajzen, 1991). Individuals would therefore favour behaviours which are associated with positive attributes and positive outcomes (Ajzen, 2011).

The subjective norm component is the second precursor to intention. Subjective norm is a function of normative beliefs, which represent the perceptions of the individual's society, and the societal pressures involved regarding performance of the behaviour in question (Ajzen, 1991). In addition to the societal perception of the behaviour for the individual, the individual's motivation and desire to comply with these societal norms and pressures are included in this component (Ajzen, 2011).

The third and final precursor to intention is the perceived behavioural control component. Perceived behavioural control is a function of the control beliefs which create the individual's perception around whether the individual has the necessary resources, opportunities, capabilities and power to accomplish the behaviour in question (Ajzen, 1991). Internal factors and external factors are involved in the formation of control beliefs, and can be viewed as the level of confidence and self-belief to achieve and succeed in the behaviour in question (Ajzen, 1991). Ajzen (2011) compares perceived behavioural control to the notion of self-efficacy in that they both represent the individual's belief of capability in performing behaviour.

In summation, the TPB model is supported as a complete behavioural theory as any other exogenous influence on behaviour is considered to be accounted for through its influence on the three components of the TPB (Armitage & Conner, 2001).

The individual's behavioural beliefs generate an attitude toward the behaviour, while the individual's normative beliefs construct the subjective norm, and the individual's control beliefs lead to perceived behavioural control. The combination of these three components initiate the formation of behavioural intention, which is the biggest predictor of a specific behaviour (Ajzen, 2011).

2.7 Empirical Research

This section will outline the progression of empirical research in the prediction of entrepreneurial intention as can be seen in Rusteberg (2013), and will be followed by a consolidation of the relevant findings of this research.

2.7.1 Progression of the research

Entrepreneurial research had already started to shift away from a demographically focused and personality and characteristic based approach and began to access the psychological literature when Davidsson (1995) developed and analysed an economic-psychological model of aspects that influenced an individual's intention to initiate entrepreneurial activity.

This economic-psychological model attempted to combine several factors from various literature and models, including the TPB, in an effort to examine entrepreneurial intention specifically (Davidsson, 1995). This model was examined on a large random sample of the Swedish population between 35 and 40 years of age as this was considered to be the age in which an individual would consider self-employment.

The fundamental component in this study was entrepreneurial conviction, which was discovered to be the primary determinant of entrepreneurial intention (Davidsson, 1995). Autio et al. (2001) noted that entrepreneurial conviction, as defined by Davidsson (1995) was representative of the perceived behavioural control component of the TPB.

Davidsson (1995) also noted that attitudes, both general and domain, function as moderators to affect the demographic factors on entrepreneurial conviction. General attitudes and domain attitudes can be viewed to resemble the attitude toward the behaviour component of the TPB (Autio et al., 2001).

The results of this study revealed that 35% of the variation in entrepreneurial conviction could be attributed to attitudes, both general and domain specific, and demographic factors (Davidsson, 1995). Over 50% of the variation on entrepreneurial intention was explained by the model (Davidsson, 1995). Davidsson (1995) concluded this study by stating that social reality is a complex concept, and as such, called for large studies and replications together with theoretical amalgamation and interpretation.

Kolvereid (1996) employed the TPB in an attempt to predict entrepreneurial intention, referred to as the intention of the individual to enter an occupation as either self-employed or to be formally employed. This study was examined on 143 students of a Norwegian business school.

In an attempt to test the sufficiency of the TPB, additional variables were included in the TPB model to assess whether these additional variables

would add predictive ability (Kolvereid, 1996). These additional variables were family background, gender and entrepreneurial experience (Kolvereid, 1996).

This study concluded that the TPB was the strongest predictor of self-employment or formal employment intention (Kolvereid, 1996). Furthermore, the author determined that the additional demographic variables did effect this intention, however these variables were accounted for through the existing components of the TPB, namely; attitude toward the behaviour, subjective norms, and perceived behavioural control, providing support of the sufficiency of the TPB (Kolvereid, 1996).

Kolvereid (1996) closed this study with a recommendation that future studies should include a measure of how the effect of role models and of entrepreneurial education would influence the various components of entrepreneurial intention.

Tkachev and Kolvereid (1999) used the TPB to predict entrepreneurial intention, referred to as the intention of the individual to enter an occupation as either self-employed or to be formally employed in line with Kolvereid (1996). This study was examined across three separate universities on 512 Russian students (Tkachev & Kolvereid, 1999).

Following on from the recommendations of Kolvereid (1996), this study included a measurement of the effect of role models through a tracking model that would establish the influence of significant role models such as parents on the entrepreneurial intention of the individual (Tkachev & Kolvereid, 1999). This study concluded in agreement with Kolvereid (1996) in that the TPB was the strongest predictor of self-employment or formal employment intention (Tkachev & Kolvereid, 1999).

The tracking model measuring the influence of role models on the individual's intention proved to be insignificant (Tkachev & Kolvereid, 1999). Tkachev and Kolvereid (1999) recommended that future research

in emerging economies would provide the prospect of testing theories established in developed economies.

Krueger et al. (2000) undertook a study to compare the two dominant intention based models used to predict entrepreneurial intention in the literature at the time; the TPB and the SEE. The sample was made up of 97 senior students of a business school who were considered to be facing employment decisions (Krueger et al., 2000).

The similarities of the two models were noted in that Shapero and Sokol (1982) state that the SEE model provides for the influence of the individual's assessment of their propensity to act, as well as the desirability and feasibility to the individual on entrepreneurial intention, while Ajzen (1991) states that the TPB provides for the individual's assessment of their attitude toward the behaviour, subjective norms and perceived behavioural control to influence entrepreneurial intention (Krueger et al., 2000). A competing models method was undertaken in which the regression results for each model were compared (Krueger et al., 2000).

This study concluded with robust statistical support for each model and called for further research to apply these models on samples that are also facing employment decisions, yet that vary in terms of demographics and experience (Krueger et al., 2000).

Autio et al. (2001) undertook a study to explore the factors that influence entrepreneurial intention and to examine the strength of the TPB in doing so. A rigid instrument was developed to apply the TPB in order to fully comprehend the determinants of entrepreneurial intention and the precursors of the TPB (Autio et al., 2001). An international sample was made up of 3445 students from universities in Finland, Sweden and the United States of America, and further separated into two samples made up of European and American students (Autio et al., 2001).

The instrument developed explained 35.3% variation in entrepreneurial intention for the United States of America sample and 21.4% variation in entrepreneurial intention for the samples from Finland and Sweden (Autio et al., 2001). The study furthermore explained the strength of each precursor of the intention in the TPB to entrepreneurial intention, stating that entrepreneurial intention was determined most by perceived behavioural control, slightly less by attitude toward the behaviour, and the least by subjective norm (Autio et al., 2001).

This study recognised that a limitation in the instrument in that attitude toward the behaviour was measured on a single item measurement scale and as a result, the study was repeated using more extensive measurement scales for the attitude toward the behaviour and subjective norm constructs (Autio et al., 2001). This advanced study examined 97 Masters of Business Administration students from the London Business School in the United Kingdom (Autio et al., 2001).

The study with advanced measurement scales concurred with the original study in that entrepreneurial intention was determined most by perceived behavioural control, however, attitude toward the behaviour was the next most influential determinant while subjective norms had no statistical influence (Autio et al., 2001). Autio et al., (2001) proposed that future research should include a measure to understand the success of entrepreneurial activity as a deliverable of entrepreneurial intention.

Luthje and Franke (2003) attempted to identify the determinants of entrepreneurial intention of a sample comprised of 512 engineering students at the Massachusetts Institute of Technology in the United States of America. The study modified the TPB with two additional variables; personal traits and situational factors (Luthje & Franke, 2003).

The additional variables were incorporated into the model by means of their influence on the existing components of the TPB. While the influence of

situational factors were added as separate precursors to intention, personality traits were moderated through the attitude toward the behaviour component (Luthje & Franke, 2003).

The results of this study revealed that the attitude toward the behaviour, which included the additional variable of personality traits, was the most influential determinant of entrepreneurial intention (Luthje & Franke, 2003). The authors recommend that further studies in the area of the attitude toward the behaviour component would lead to an advanced understanding of entrepreneurial intention among students (Luthje & Franke, 2003).

The following study aimed at identifying the determinants of entrepreneurial intention took place a year later, with the intention to contrast the influence of varying cultural and economic contexts (Kristiansen & Indarti, 2004). In order to achieve this, the authors included 251 students in the sample, from universities in two different countries; Norway and Indonesia (Kristiansen & Indarti, 2004).

The authors designed a model which included three independent variables understood to be influential on entrepreneurial intention by using three constructs commonly regarded to exert influence on entrepreneurial intention (Kristiansen & Indarti, 2004). The first variable, measured through the individuals academic experience, commercial experience, gender and age established the individual background and demographic factors (Kristiansen & Indarti, 2004). The second variable, personality traits and attitudes was measured through the self-efficacy, locus of control, and need for achievement of the individual (Kristiansen & Indarti, 2004). The final variable measured the individual's access to capital, information and social networks in order to establish the situational factors (Kristiansen & Indarti, 2004).

The authors concluded that personality traits and attitudes, and specifically, self-efficacy, in addition to situational factors were the variables that had the most significant effect on entrepreneurial intention (Kristiansen & Indarti, 2004). Demographic factors and individual background had no effect on entrepreneurial intention according to Kristiansen and Indarti (2004), while personality traits and attitudes were found to have a significant effect on entrepreneurial intention when they had an effect on self-efficacy.

Although the TPB model was not used explicitly in this study, the similarities between the variables used to determine entrepreneurial intention and the precursors of intent according to the TPB are strong, thus continuing the support of the TPB in studying entrepreneurial intention.

The subsequent research to contribute towards the literature of entrepreneurial intention undertaken by Van Gelderen et al. (2008) introduced a comprehensive model of the TPB. The sample of this study comprised of 1225 business administration students from four different universities in the Netherlands (Van Gelderen et al., 2008).

While the subjective norm precursor to intention was measured on a single item measure referred to merely as subjective norm in the comprehensive model, Van Gelderen et al. (2008) measured the attitude toward the behaviour precursor to entrepreneurial intention on the importance to the individual of autonomy, challenge, wealth accumulation, financial security and work load avoidance. The perceived behavioural control precursor to entrepreneurial intention was measured on the individual's perceived level of perseverance, creativity, entrepreneurial alertness and entrepreneurial self-efficacy (Van Gelderen et al., 2008).

The results of this study concluded that the comprehensive model accounted for 38% variation in entrepreneurial intention (Van Gelderen et al., 2008). Furthermore, the results of this study determined that

entrepreneurial alertness, measured through the perceived behavioural control precursor to entrepreneurial intention, and financial security, measured through the attitude toward the behaviour precursor to entrepreneurial intention, were the most influential determinants of entrepreneurial intention (Van Gelderen et al., 2008).

The same year, Gird and Bagraim (2008) conducted the first study in South Africa in this field; a study to test the competence of the TPB to predict entrepreneurial intention in South Africa. In addition to this, Gird and Bagraim (2008) tested the sufficiency of the TPB model by examining four additional factors understood to be influential on entrepreneurial intention; personality traits, situational factors, prior exposure to entrepreneurship, and demographics (Gird & Bagraim, 2008). The sample contained 247 business students from two different universities (Gird & Bagraim, 2008).

The study concluded with further support of the TPB in predicting entrepreneurial intention as the model explained 27% of the variation in entrepreneurial intention (Gird & Bagraim, 2008). The sufficiency of the model was qualified as the only additional factor that had a significant influence on entrepreneurial intention was prior exposure to entrepreneurship, while personality traits, situational factors and demographics were found to have little influence on entrepreneurial intention (Gird & Bagraim, 2008).

Motivated by Gird and Bagraim (2008), Rusteberg (2013) duplicated the study on a sample comprised of 134 South African Masters of Business Administration students. Rusteberg (2013) integrated measurement scales from two studies; Krueger et al. (2000) and Autio et al. (2001) in an effort to advance measurement reliability. Rusteberg (2013) concluded that the model explained 21% of the variation in entrepreneurial intention, concurring with Gird and Bagraim (2008).

2.7.2 Consolidation of the literature

The TPB has been a prominent feature in the research focussed on understanding the entrepreneur as an individual through the cognitive approach.

Although Davidsson (1995) used an economic-psychological model of factors, this model comprised of measures from the TPB, and the central construct, entrepreneurial conviction, is comparable to the perceived behavioural precursor to intention of the TPB according to Autio et al. (2001).

The literature then developed into testing the precursors to intention according to the TPB itself in addition to testing the sufficiency of the TPB by introducing additional variables commonly regarded to influence entrepreneurial intention (Autio et al., 2001; Gird & Bagraim, 2008; Kolvereid, 1996; Kristiansen & Indarti, 2004; Krueger et al., 2000; Luthje & Franke, 2003; Rusteberg, 2013; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008).

The literature completely supports the TPB not only as a statistically significant predictor of entrepreneurial intention, but also as a sufficient predictor of entrepreneurial intention, while the model has been tested as such in developing and developed economies (Autio et al., 2001; Gird & Bagraim, 2008; Kolvereid, 1996; Kristiansen & Indarti, 2004; Krueger et al., 2000; Luthje & Franke, 2003; Rusteberg, 2013; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008).

2.8 Conclusion

The field of entrepreneurship has generated a vast body of research that chronologically can be split into three dominant approaches; early research focussed on entrepreneurship as a function of the economy, later research focussed on entrepreneurship as a process, while current research has focussed on the entrepreneur as an individual.

The current approach to entrepreneurship research, the entrepreneur as an individual is further grouped into three principal streams; the trait approach, the behavioural approach, and the area within which the current research is situated, the cognitive approach.

Within the cognitive approach to understanding the entrepreneur as an individual, research is rich with the study of entrepreneurial intention, the best predictor of entrepreneurial activity. While various models and methods exist in the study of entrepreneurial intention, the TPB dominates the research with empirical evidence of its ability to predict entrepreneurial intention.

The literature supports the TPB as a predictor of entrepreneurial intention, however an inadequacy exists in the population that the TPB model has been tested on. While Davidsson (1995) tested the TPB model on the general population, the other studies have tested the TPB model on university students, often business students (Autio et al., 2001; Gird & Bagraim, 2008; Kolvereid, 1996; Kristiansen & Indarti, 2004; Krueger et al., 2000; Luthje & Franke, 2003; Rusteberg, 2013; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008).

Although this approach has developed an understanding of entrepreneurial intention, and the prediction of such, there is limited knowledge of entrepreneurial intention and the determinants of entrepreneurial intention of populations with high levels of entrepreneurial activity.

This provides an opportunity to build on the literature, by applying the TPB to a population with high levels of entrepreneurial activity in an effort to understand the predictors of entrepreneurial intention in populations with high levels of entrepreneurial activity.

3. Chapter Three – Research Question and Hypothesis

3.1 Chapter Introduction

This chapter outlines the research questions and objective and defines the research proposition and hypothesis that result from the research problem posed in Chapter One, and the literature presented in Chapter Two.

3.2 Research Question

The research question posed is as follows:

Can the TPB provide a statistically significant prediction of entrepreneurial intention in a community commonly regarded as entrepreneurial, specifically the South African Jewish community?

3.3 Research Objective

If the research question proves true, the determinants of entrepreneurial intention of a community commonly regarded not only as highly entrepreneurial, but also that produces high-impact entrepreneurs, can be fostered in an effort to improve the average rate of entrepreneurial intention in South Africa.

If executed, entrepreneurial intention, the best predictor of entrepreneurial activity, can increase, thereby increasing entrepreneurial activity, the driver of the economy. As a result, the economic outlook can be altered.

3.4 Research Proposition

The TPB is a statistically significant predictor of entrepreneurial intention in the South African Jewish community.

3.5 Research Hypothesis

The TPB is a significant predictor of entrepreneurial intention within the South African Jewish Community

H₀: The TPB is a significant predictor of entrepreneurial intention within the South African Jewish Community

H₁: The TPB is not a significant predictor of entrepreneurial intention within the South African Jewish Community

4. Chapter Four - Research Methodology

4.1 Chapter Introduction

The first two chapters served to review the literature of the field of entrepreneurship and entrepreneurial intention and identified the need for research into entrepreneurial intention within a community commonly regarded as highly entrepreneurial. Chapter Three continued and defined the research objective, research question and research hypothesis.

This chapter serves to detail the research method and methodology used for the purpose of the current research.

4.2 Research Philosophy and Design

This research report was guided by the research philosophy of pragmatism, which contends that the biggest priority of the research is the research questions and research hypothesis (Saunders & Lewis, 2012). The current research was managed in a deductive means as the research approach was developed specifically in order to analyse the results (Saunders & Lewis, 2012).

As the research aimed to precisely describe the components of the TPB within the Jewish Community in South Africa via the collection of measurable and quantifiable data, the research design employed for this study was a descriptive, quantitative design as recommended by Saunders and Lewis (2012).

This measurable and quantifiable data was collected through a cross sectional survey design in which respondents completed self-report

questionnaires, an approach regarded to be an acceptable method for researching entrepreneurial intention (Krueger et al., 2000).

The research objective was to ascertain whether the TPB can provide a statistically significant prediction of entrepreneurial intention. In order to achieve this, the data was analysed through structural equation modelling, a technique which according to Hair, Black, Babin, Anderson and Tatham (2006) should be employed to accomplish a best fitting model between all measured constructs. For the purpose of the current research, the measured constructs were the components of the TPB. Structural equation modelling is discussed and justified in a further section.

4.3 Population, Sampling and Unit of Analysis

4.3.1 Population

The population is the comprehensive collection of all units of a group (Saunders & Lewis, 2012). For the purpose of the current research, the population was comprised of all members of the South African Jewish community.

4.3.2 Sampling and Unit of Analysis

The sampling frame is a comprehensive list of all representatives of the population and for the purpose of the current research, was a comprehensive list of every member of the South African Jewish community (Saunders & Lewis, 2012). The sampling frame was accessed through the South African Jewish Board of Deputies who act as the

authority on South African Jewry and protect the interests of South African Jews (South African Jewish Board of Deputies, 2013).

Sample members were chosen using a non-probability purposive sampling technique in which the survey was sent to the entire sampling frame, and all responses within a certain time period were included. Vogt (2005) explains purposive sampling as a technique employed by a researcher to deliberately select sample members based on certain characteristics which are representative of the population.

In order to support this research report, the unit of analysis, as defined by Vogt (2005) as the item about which information is gathered, was a member of the South African Jewish community. The unit of analysis is further explained by Vogt (2005) as the item about which researcher's reach decision on information that is gathered and analysed.

4.4 Survey Design

The survey was designed by means of an online survey tool. This tool allowed the researcher to design the layout of the survey in an easy to read fashion for the respondents, as well as capture the responses into the desired format for statistical analysis.

4.5 Pilot Test

Before distributing the survey, a pilot test as recommended by Saunders and Lewis (2012) was undertaken to identify and attend to any limitations within the survey before distributing it to the sampling frame. The pilot test ensured that the eventual respondents would have no difficulty

understanding the instructions, questions and flow of the survey. The pilot test was distributed to seven members of the population and was deemed competent for distribution to the sampling frame.

4.6 Data Collection

Once the researcher had received ethical clearance from the Gordon Institute of Business Science (GIBS) ethical clearance committee and approval from the South African Jewish Board of Deputies to distribute the survey to the sampling frame, an email was sent on behalf of the researcher to the sampling frame.

The email included information suggested by Saunders and Lewis (2012) such as the letter head information of GIBS, research information and motivation, confidentiality information, and gratitude of the researcher in advance. The email contained a hyperlink to the online survey, allowing the respondents to complete the survey conveniently.

4.7 Validity and Reliability

Validity and reliability are two related concepts in which the integrity of the research is examined to understand the scope to which one can draw significant findings from the research (Hair et al., 2006). In order to ascertain the validity and reliability of this research report, it is useful to begin by explaining these concepts to relate them to the current research.

According to Saunders and Lewis (2012), validity is a measurement surrounding the research method, and whether or not it actually measures

what it claims to measure, and as such, if the research findings actually reflect about what they claim to be reflect.

While validity can be affected by various factors, construct validity cannot be empirically tested and therefore depends on the support and approval of experts in the field to determine if the constructed measures actually measure what was intended (Hair et al., 2006).

Hair et al. (2006) explain that reliability is considered a measurement concept that measures the consistency of a measurement instrument on its measurement target. Hair et al. (2006) further clarify that a reliable measurement instrument will provide consistent results when measuring its subject repeatedly under similar circumstances.

Unlike validity, reliability can be empirically tested using a widely accepted reliability coefficient known as Cronbach's Alpha (Hair et al., 2006). Trobia (2008) explains Cronbach's Alpha as a measurement of consistency within a set of survey items that establish a construct. The commonly recognised lower limit for Cronbach's Alpha is 0.70 however, this can be decreased to 0.60 for the purposes of exploratory research (Hair et al., 2006).

It is evident that both construct validity and reliability are vital requirements for the current research. As such, in order to satisfy the requirements of validity, the instrument used for the current research had been developed and subsequently used, supported and endorsed by what can be considered to be experts in the area of entrepreneurial intention (Autio et al., 2001; Kolvereid, 1996; Kristiansen & Indarti, 2004; Krueger et al., 2000; Luthje & Franke, 2003; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008).

In order to satisfy the requirements of reliability, Cronbach's Alpha was calculated before the researcher proceeded with statistical data analysis.

4.8 Research Instrument

The current research made use of a measurement scale commonly used in entrepreneurial intention research through the TPB. The measurement scale was developed by Autio et al. (2001), and has since been published, and subsequently used by various researchers. As such, the researcher deemed the measurement scale to be in the public domain.

Through using this measurement scale, the researcher satisfied the requirements of construct validity, ensuring that the data collection tool provided sufficient data to meet the research objective and ensured that the data collected was the data that was intended to be measured (Saunders & Lewis, 2012). Making use of this measurement scale further provided the researcher the ability to sufficiently measure each of the components of the TPB.

The measurement scale consisted of four constructs, each representing a component of the TPB. Each construct consisted of statements to which the respondent recorded responses on a Likert scale. The attitude toward the behaviour and subjective norm constructs were measured on a 7-point Likert scale while the perceived behavioural control and intention constructs were measured on a 5-point Likert scale. The combination of a 5-point and 7-point Likert scale did not affect the research as a homogenous scale was used throughout the research, measuring the relationship between the constructs and not the nature of the construct itself (see Appendix A).

Responses for each component of the TPB were combined into a result representative of a construct representing a component of the TPB.

4.8.1 Attitude Toward the Behaviour

The construct representing the attitude toward the behaviour component of the TPB achieved a Cronbach's Alpha coefficient of 0.76 by Autio et al. (2001) when applied to their sample. This research report made use of this measure consisting of three statements measured on a 7-point Likert scale varying between 1 representing 'Highly Undesirable' and 7 representing 'Highly Desirable'.

The responses were recorded and a Cronbach's Alpha coefficient was calculated to assess reliability. The construct was then calculated as a mean of the responses for each statement. The statements for this construct were:

- I view a career in entrepreneurship as: (1) Highly Undesirable → (7) Highly Desirable
- If my child were to become an entrepreneur, I would find it to be: (1) Highly Undesirable → (7) Highly Desirable
- For people in my community, with my background, I personally consider entrepreneurship to be: (1) Highly Undesirable → (7) Highly Desirable

4.8.2 Subjective Norm

The construct representing the subjective norm component of the TPB achieved a Cronbach's Alpha coefficient of 0.80 by Autio et al. (2001) when applied to their sample. This research report made use of this measure consisting of four statements measured on a 7-point Likert scale varying between 1 representing 'Highly Undesirable' and 7 representing 'Highly Desirable'.

The responses were recorded and a Cronbach's Alpha coefficient was calculated to assess reliability. The construct was then calculated as a mean of the responses for each statement. The statements for this construct were:

- If I became an entrepreneur, my family would find it: (1) Highly Undesirable → (7) Highly Desirable
- If I became an entrepreneur, my community would find it: (1) Highly Undesirable → (7) Highly Desirable
- If I became an entrepreneur, my colleagues would find it: (1) Highly Undesirable → (7) Highly Desirable
- If I became an entrepreneur, people close to me would find it: (1) Highly Undesirable → (7) Highly Desirable

4.8.3 Perceived Behavioural Control

The construct representing the perceived behavioural control component of the TPB achieved a Cronbach's Alpha coefficient of 0.75 by Autio et al. (2001) when applied to their sample. This research report made use of this measure consisting of four statements measured on a 5-point Likert scale varying between 1 representing 'Disagree' and 5 representing 'Agree'.

The responses were recorded and a Cronbach's Alpha coefficient was calculated to assess reliability. The construct was then calculated as a mean of the responses for each statement. The statements for this construct were:

- I am confident I would be a successful entrepreneur: (1) Disagree → (5) Agree
- It would be easy to begin an entrepreneurial career: (1) Disagree → (5) Agree

- I have the resources, opportunities, capabilities, and power to become an entrepreneur: (1) Disagree → (5) Agree
- I could take full advantage of my education if I became an entrepreneur: (1) Disagree → (5) Agree

4.8.4 Intention

The construct representing the intention component of the TPB achieved a Cronbach's Alpha coefficient of 0.82 by Autio et al. (2001) when applied to their sample. This research report made use of this measure consisting of four statements measured on a 5-point Likert scale varying between 1 representing 'Not at all Likely' and 5 representing 'Already Started a Firm'.

The responses were recorded and a Cronbach's Alpha coefficient was calculated to assess reliability. The construct was then calculated as a mean of the responses for each statement. The statements for this construct were:

- I will be self-employed on a full time basis within 1 year: (1) Not at all Likely → (5) Already Started a Firm
- I will be self-employed on a part time basis within 1 year: (1) Not at all Likely → (5) Already Started a Firm
- I will be self-employed on a full time basis within 5 years: (1) Not at all Likely → (5) Already Started a Firm
- I will be self-employed on a part time basis within 5 years: (1) Not at all Likely → (5) Already Started a Firm

4.9 Data Analysis

The responses to the survey were conveniently exported using the online survey tool to Microsoft Excel where the data was organised and then further exported into IBM SPSS Statistics Software to be analysed.

The researcher then performed descriptive statistics; arithmetical procedures used to summarise and present the data to further understand the measures of central tendency such as the mean, median and mode, and the measures of dispersion such as the range, variance and standard deviation (Terre Blanche, Durrheim, & Painter, 2006).

This organised the data in a format acceptable to describe and analyse, and then to perform a reliability analysis for each of the constructs by calculating the Cronbach's Alpha in order to satisfy the concept of reliability discussed above, and to continue to address the hypothesis posed in Chapter Three.

In order to address the hypothesis posed in Chapter Three, a structural equation modelling technique was used to confirm the TPB as a statistically significant predictor of entrepreneurial intention.

4.9.1 Structural Equation Modelling

Salkind (2013) explains structural equation modelling as an advanced statistical technique, which based on relationships between variables, acts as a confirmatory method, suitable when the researcher aims to confirm whether a certain model that has been proposed, in this case the TPB, actually functions. Salkind (2013) further claims that structural equation modelling is an appropriate technique when analysing if the collected data fits the proposed model.

Hair et al. (2006) promote further support for structural equation modelling by describing it as a technique which permits for separate relationships for each of the dependant variables. Hair et al. (2006) expound that it is a technique which is characterised by a path model which the relationship between independent and dependant variables, and these authors add that prior research and experience provide for the differentiation between the independent variables and the dependant variable. In this case, the TPB clearly illustrates that intention, the dependant variable is influenced through the independent variables; the attitude toward the behaviour, subjective norms, and perceived behavioural control.

Model Evaluation

Model evaluation is a contentious issue of structural equation modelling as various statistics have been proposed as measures of merit for a model. Hair et al. (2006) however, state that in order to establish a satisfactory or unsatisfactory model fit, several statistics need to be recorded.

Garson (2012) agrees with Hair et al. (2006) in that in order to assess a model fit through structural equation modelling, four indices need to be represented and satisfied. These indices are identified and discussed below.

One absolute fit index needs to be represented and for the purpose of the current research the Relative Chi-Square Measurement was selected. This is a fit based on the minimum value of discrepancy. The authors state a ratio of approximately 5 or less can be seen as reasonable while ratios in the range of 2 to 1 and 3 to 1 are suggestive of an acceptable fit between the proposed model and the sample data (Garson, 2012; Hair et al., 2006).

One incremental fit index should be represented and for the purpose of the current research, the Comparative Fit Index was selected as this index is widely used due to its relative insensitivity to model complexity. The values of the Comparative Fit Index range between 0 and 1, with an acceptable fit indicated by a higher value. The authors state that Comparative Fit Index values greater than 0.9 can be reflective of a sound fit model (Garson, 2012; Hair et al., 2006).

One goodness of fit index should be present and for the purpose of the current research, the Goodness-of-Fit index was selected. This index denotes the relative amount of variance and covariance in the sample. The value of the Goodness-of-Fit index also range between 0 and 1 with values of 0.9 and above considered to be acceptable (Garson, 2012; Hair et al., 2006).

One badness of fit index is required and for the purpose of the current research, the Root Mean Square Error of Approximation was chosen. This index offers a signal of the amount of error in the fit between the proposed model and the sample data, relative to the complexity in the proposed model. The authors claim that in contrast to the other indices, lower values reveal an acceptable fit with values below 0.1 indicating an acceptable fit (Garson, 2012; Hair et al., 2006).

Model Significance

The representation and satisfaction of the four indices above imply that the model is structurally sound, which can allow the researcher to continue and confirm whether the model's predictive strength is significant by examining the significance of the independent variables on the dependant variable.

This is done by calculating a p-value representing the probability of chance for each component of the TPB in predicting intention, allowing the researcher to determine the predictive strength of each component of the TPB on the intention component of the TPB. A p-value of anything less than 0.05 is considered to be significant (Garson, 2012; Hair et al., 2006).

4.8 Limitations

As is common with all cross sectional research, a limitation exists in that it is difficult to make a causal inference due to its nature as a snapshot view of the population (Terre Blanche et al., 2006). This provides an additional limitation in that the situation may provide varying results had the research been conducted during another time period (Terre Blanche et al., 2006).

A further limitation to the current study is the sampling technique employed. Non-probability purposive sampling poses a limitation in the fact that the sample may not be representative. In addition to this, due to the timing of collecting the data, the sample size can be considered relatively small to the population thus affecting the generalizability of the findings to the South African Jewish Community.

Finally, subject bias, the concept according to Saunders and Lewis (2012) of respondents providing unreliable information in order to view themselves in the way that they desire, threatens both the validity and reliability of the current research.

4.9 Conclusion

In this chapter, the research method and methodology was discussed, detailing the process taken by the researcher in designing and implementing this research report. The research philosophy in relation to the research objectives was explained and the population, sample and unit of analysis were defined.

The researcher explained the survey design and the development of the research instrument; the constructs were described in relation to the components of the TPB. The research process was clarified; once the survey was designed, a pilot test was used, and once ethical clearance was obtained, the survey was distributed to the sampling frame and the data was collected.

The data analysis technique, structural equation modelling, was described and justified, and its application to the sample data was explained. The concept of validity and reliability were addressed in relation to the current research, and finally, the limitations of this research report were discussed.

5. Chapter Five - Results

5.1 Chapter Introduction

The method and methodology of the current research was detailed in the previous chapter. This explained the research philosophy and design, and revealed the population, sampling and unit of analysis. The survey design, pilot test and data collection was then discussed followed by the address of the concept of validity and reliability. The research instrument and theoretical constructs were clarified, together with support for and defence of the data analysis. Finally, the limitations of the current research were highlighted. This chapter presents the results from the statistical analysis.

5.2 Descriptive Statistics

One hundred and thirty five respondents completed the survey. As some respondents failed to complete the entire survey, the researcher focussed on those respondents that completed at least 80% of the survey. This resulted in one hundred and twenty respondents that were used for the ensuing analysis (see Table 5-1).

Table 5-1: Descriptive Statistics: Percentage of Responses Completed

		Frequency	Percent	Cumulative Percent
Valid	.00	12	8.9	8.9
	5.56	1	.7	9.6
	11.11	1	.7	10.4
	16.67	1	.7	11.1
	83.33	3	2.2	13.3
	88.89	1	.7	14.1
	94.44	3	2.2	16.3
	100.00	113	83.7	100.0
	Total	135	100.0	

Of the one hundred and twenty respondents that completed the entire survey, 32% were female and 68% were male (see Table 5-2). The respondents age ranged from 19 to 69 years of age with a mean of 35.33 and a standard deviation of 12.025 indicating an acceptable representation with 68.26% of respondents falling between the ages of 23 and 47 years (see Table 5-3).

Table 5-2: Descriptive Statistics: Gender

		Frequency	Percent
Valid	Female	38	31.7
	Male	81	67.5
	Total	119	99.2
Missing	System	1	.8
Total		120	100.0

Table 5-3: Descriptive Statistics: Age

N	Valid	120
	Missing	0
Mean		35.33
Median		31.00
Std. Deviation		12.025
Minimum		19
Maximum		69

The researcher then proceeded to view the descriptive statistics of each construct for a high-level understanding of the responses for each construct.

The attitude toward the behaviour construct, consisted of three statements measured on a 7-point Likert scale varying between 1 representing 'Highly Undesirable' and 7 representing 'Highly Desirable', and a neutral value of 3. The mean for each statement was 5.93, 5.89 and 6.20 for each statement respectively, indicating positive responses for this construct, with the most positive response produced in statement three (see Table 5-4).

The subjective norm construct, consisted of four statements measured on a 7-point Likert scale varying between 1 representing 'Highly Undesirable' and 7 representing 'Highly Desirable', and a neutral value of 3. The mean for each statement was 5.93, 6.03, 5.38 and 5.88 respectively, indicating positive responses for this construct, and the most positive result produced from statement two (see Table 5-4).

The perceived behavioural control construct consisted of four statements measured on a 5-point Likert scale varying between 1 representing 'Disagree' and 5 representing 'Agree', and a neutral value of 2.5. The mean for each statement was 3.82, 2.38, 3.83 and 4.02 respectively, indicating a positive response for this construct, with the least positive response produced from statement two (see Table 5-4).

The intention construct consisted of four statements measured on a 5-point Likert scale varying between 1 representing 'Not at all Likely' and 5 representing 'Already Started a Firm', with a middle value of 3 as opposed to a neutral value. The mean for each statement was 2.58, 2.5, 3.26 and 3.04 respectively, indicating a positive response for this construct, although a more positive response for entrepreneurial intention over a five year period than over a one year period (see Table 5-4).

Table 5-4: Descriptive Statistics: Theoretical Constructs

Attitude Towards the Behaviour	N		Mean	Median	Std. Dev.	Min	Max
	Valid	Missing					
[ATB] I view a career in entrepreneurship as	119	1	5.93	6.00	1.382	2	7
[ATB] If my child were to become an entrepreneur, I would find it to be	120	0	5.89	7.00	1.483	1	7
[ATB] For people in my community, with my background, I personally consider entrepreneurship to be	120	0	6.20	7.00	1.082	2	7

Subjective Norms	N		Mean	Median	Std. Dev.	Min	Max
	Valid	Missing					
[SN] If I became an entrepreneur, my family would find it	120	0	5.93	6.00	1.062	2	7
[SN] If I became an entrepreneur, my community would find it	120	0	6.03	6.00	1.229	1	7
[SN] If I became an entrepreneur, my colleagues would find it	120	0	5.38	6.00	1.433	1	7
[SN] If I became an entrepreneur, people close to me would find it	120	0	5.88	6.00	1.164	1	7

Perceived Behavioural Control	N		Mean	Median	Std. Dev.	Min	Max
	Valid	Missing					
[PBC] I am confident I would be a successful entrepreneur	119	1	3.82	4.00	1.214	1	5
[PBC] It would be easy to begin an entrepreneurial career	120	0	2.38	2.00	1.336	1	5
[PBC] I have the resources, opportunities, capabilities and power to become an entrepreneur	120	0	3.83	4.00	1.155	1	5
[PBC] I could take full advantage of my education if I became an entrepreneur	120	0	4.02	4.00	1.123	1	5

Intention	N		Mean	Median	Std. Dev.	Min	Max
	Valid	Missing					
[I] I will be self-employed on a full time basis within 1 year	119	1	2.58	2.00	1.515	1	5
[I] I will be self-employed on a part time basis within 1 year	116	4	2.50	2.00	1.466	1	5
[I] I will be self-employed on a full time basis within 5 years	117	3	3.26	4.00	1.255	1	5
[I] I will be self-employed on a part time basis within 5 years	117	3	3.04	3.00	1.316	1	5

5.3 Reliability Analysis

Although the element of reliability was satisfied on a theoretical level as the research instrument used had been supported by what is considered to be experts in the field, the researcher aimed to satisfy the requirement on a practical level.

A reliability analysis was performed by calculating a reliability coefficient known as Cronbach's Alpha. Terre Blanche et al. (2006) explain that a Cronbach's Alpha result below 0.5 is unacceptable while a result above 0.6 is uncertain. The authors further explain that a result above 0.7 is acceptable, above 0.8 is respectable and above 0.9 is excellent.

A Cronbach's Alpha of 0.802 was recorded for the attitude toward the behaviour construct indicating a respectable result (see Table 5-5).

Table 5-5: Reliability Analysis: Attitude Toward the Behaviour Construct

Construct	Cronbach's Alpha	N of Items
ATB	0.802	3.0

A Cronbach's Alpha of 0.842 was recorded for the subjective norms construct again indicating a respectable result (see Table 5-6).

Table 5-6: Reliability Analysis: Subjective Norms Construct

Construct	Cronbach's Alpha	N of Items
SN	0.842	4.0

A Cronbach's Alpha of 0.679 was recorded for the perceived behavioural control construct indicating an uncertain result, however as this result leans towards 7, an acceptable result, the researcher is confident in the reliability of this construct (see Table 5-7).

Table 5-7: Reliability Analysis: Perceived Behavioural Control Construct

Construct	Cronbach's Alpha	N of Items
PBC	0.679	4.0

A Cronbach's Alpha of 0.919 was recorded for the intention construct indicating an excellent result (see Table 5-8).

Table 5-8: Reliability Analysis: Intention Construct

Construct	Cronbach's Alpha	N of Items
I	0.919	4.0

5.4 Construct Descriptive Analysis

A construct analysis was then applied in order to gain a deeper understanding of each of the constructs from the descriptive understanding provided above (see Table 5-9).

Table 5-9: Construct Descriptive Analysis

	N		Mean	Median	Std. Dev.	Min	Max
	Valid	Missing					
Perceived Behavioural Control	120	0	3.5104	3.5000	.85896	1.00	5.00
Subjective Norm	120	0	5.8042	6.0000	1.01262	2.25	7.00
Attitude Towards the Behaviour	120	0	6.0056	6.3333	1.12271	1.67	7.00
Intentions	120	0	2.8792	2.7500	1.25941	1.00	5.00

The construct analysis provided a range, mean, median and standard deviation for each construct in order to view what the average responses were for the sample. The responses were as follows: The attitude toward the behaviour construct produced a range of 1.67 to 7 with a mean of 6.0056, a median of 6.3333 and a standard deviation of 1.12271. The subjective norm construct produced a range of 2.25 to 7 with a mean of 5.8042, a median of 6 and a standard deviation of 1.01262. The perceived behavioural control construct produced a range of 1 to 5 with a mean of 3.5104, a median of 3.5 and a standard deviation of 0.85896. The intention construct produced a range of 1 to 5 with a mean of 2.8792, a median of 2.7500 and a standard deviation of 1.25941.

5.5 Structural Equation Modelling Analysis

A path diagram was created enabling identification of the direction, causality and relationship between the constructs. This diagram also represented the error, observed variables, unobserved variables, dependency between variables and covariance between variables of all the sample data within the proposed model (see Figure 5-1).

The path diagram illustrated the error terms, observed and unobserved variables, the linear dependency and covariance between variables for all constructs in the proposed model.

Error terms represent not only fluctuations in the dependant variable, but also a composite of other variables not measured, representing all the variables that affected the dependant variable.

Observed variables represent the theoretical constructs of the research instrument, such as the statements measuring attitude toward the behaviour, subjective norms, perceived behavioural control and intention, while unobserved variables represent all work constructs generated through the path diagram.

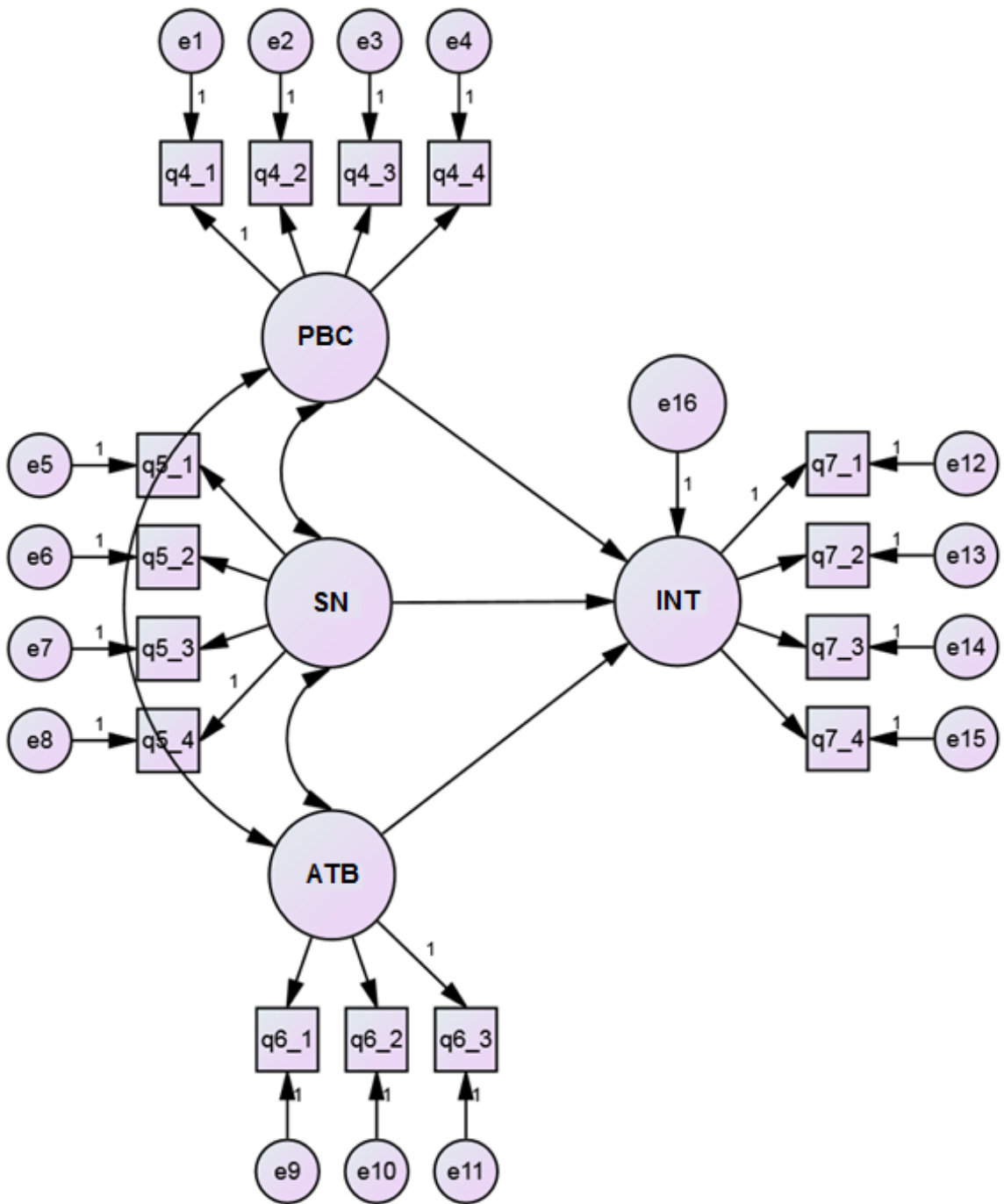
Linear dependency was revealed on three levels. The first level illustrates the error term created for each statement within the attitude toward the behaviour, subjective norms, perceived behavioural control, and intention constructs, as well as the composite of other variables on which the predicted variable, intention, may depend.

The second level demonstrates linear dependency between each observed variable such as attitude toward the behaviour, subjective norms, perceived behavioural control, and intention, and the statements within each construct was revealed.

The third level of linear dependency is illustrated for the predicted variable; intention, and the independent variables; attitude toward the behaviour, subjective norms, and perceived behavioural control.

The covariance between variables demonstrated a relationship between the three independent variables; namely the constructs of attitude toward the behaviour, subjective norms, and perceived behavioural control.

Figure 5-1: Path Diagram



5.5.1 Structural Equation Modelling: Model Evaluation

In order to assess the model fit, four indices were employed as recommended by Garson (2012) and Hair et al. (2006); the Relative Chi-Square Measurement as an absolute fit index, the Comparative Fit Index as an incremental fit index, the Goodness-of-Fit index as a goodness of fit index, and the Root Mean Square Error of Approximation as a badness of fit index.

In order to ascertain an absolute fit index, the Relative Chi-Square Measurement value was required to fall between 2 and 3. A value of 2.047 was computed, falling within the acceptable range, satisfying the requirement of an absolute fit index (see Table 5-10).

Table 5-10: Absolute Fit Index

Model	NPAR	CMIN	DF	P	CMIN/DF
Default Model	36	171.973	84	0.000	2.047
Saturated Model	120	0.000	0		
Independence Model	15	1049.005	105	0.000	9.991

In order to ascertain an incremental fit index, the Comparative Fit Index value higher than 0.9 was required. A value of 0.907 was computed, falling within the acceptable range, satisfying the requirement of an incremental fit index (see Table 5-11).

Table 5-11: Incremental Fit Index

Model	NFI	RFI	IFI	TLA	CFI
	Delta 1	rho1	Delta2	rho2	
Default Model	.836	.795	.909	.884	.907
Saturated Model	1.000		1.000		1.000
Independence Model	.000	.000	.000	.000	.000

In order to ascertain a goodness of fit index, the Goodness-of-Fit Index value of 0.9 and above was required. A value of 0.845 was computed, although falling outside of the acceptable range, this satisfies the requirement theoretically as it is high enough to be acceptable for the purpose of the current research (see Table 5-12).

Table 5-12: Goodness of Fit Index

Model	RMR	GFI	AGFI	PGFI
Default Model	.100	.845	.779	.592
Saturated Model	.000	1.000		
Independence Model	.589	.339	.245	.297

In order to ascertain a badness of fit index, the Root Mean Square Error of Approximation value equal to or lower than 0.1 was required. A value of 0.095 was computed, falling within the acceptable range, satisfying the badness of fit requirement (see Table 5-13).

Table 5-13: Badness of Fit Index

Model	RMSEA	LO 90	HI 90	PCLOSE
Default Model	.095	.075	.115	.000
Independence Model	.278	.263	.294	.000

5.5.2 Structural Equation Modelling: Model Significance

In order to understand the significance of the model in its ability to predict, a p-value was calculated for each independent variable to the dependent variable. According to Garson (2012) and Hair et al. (2006), significance is illustrated by a p-value equal to or lower than 0.05.

Attitude toward the behaviour as a predictor of intention demonstrated a p-value of 0.858, illustrating an insignificant predictor value. Subjective norms as a predictor of intention demonstrated a p-value of 0.372, illustrating an insignificant predictor value. Perceived behavioural control as a predictor of intention demonstrated a p-value of 0.004, illustrating a significant predictor value (see Table 5-14).

Table 5-14: Model Significance

	Estimate	S.E	C.R	P
INT <--- ATB	-0.076	0.424	-0.179	0.858
INT <--- SN	-0.185	0.207	-0.893	0.372
INT <--- PCB	0.860	0.297	2.891	0.004

5.6 Results for Research Hypothesis

H₀: The TPB is a significant predictor of entrepreneurial intention within the South African Jewish Community

H₁: The TPB is not a significant predictor of entrepreneurial intention within the South African Jewish Community

A structural equation modelling technique was employed to analyse the TPB. First, a model evaluation was executed to understand whether the TPB was a structurally sound model for the sample data. Four indices were examined and proven to be satisfactory, concluding that the TPB was a structurally sound model.

This was followed by a model significance assessment to understand whether the variables within the TPB, namely attitude toward the behaviour, subjective norms, and perceived behavioural control, were significant predictors of entrepreneurial intention using the sample data. Although the perceived behavioural control construct provided significant predictive power ($p = 0.004$), the attitude toward the behaviour and subjective norms provided insignificant predictive power ($p = 0.858$ and $p = 0.372$ respectively).

In consideration of the above, it seems reasonable to suggest that the research hypothesis is rejected.

6. Chapter Six - Discussion of Results

6.1 Chapter Introduction

The preceding chapter presented the results from the statistical analysis of the sample data. This chapter will discuss the outcomes of these results associated with the research hypothesis.

The research hypothesis following the research objective and question was established through the current literature in the field of entrepreneurship; entrepreneurial intention, falling within the cognitive approach to understanding the entrepreneur as an individual.

The purpose of the research was to test the predictive ability of a reputable model, the TPB, on entrepreneurial intention, in order to understand the determinants of entrepreneurial intention, the best predictor of entrepreneurial activity, within a community commonly regarded as not only entrepreneurial, but also that produces high-impact entrepreneurs.

If the determinants of entrepreneurial intention amongst this community been identified, these determinants can be fostered in order to increase the average rate of entrepreneurial intention across the country.

The data analysis process was designed in order to assess the structural fit of the TPB model with the sample data before analysing the predictive strength of the TPB model with the sample data, thereby responding to the research hypothesis.

6.2 Discussion of the Results for the Research Hypothesis

6.2.1 Model Evaluation

The first step of the data analysis process aimed at satisfying the model fit of the TPB and the sample data. Four indices were measured in judging the model fit; the Relative Chi-Square Measurement as an absolute fit index, the Comparative Fit Index as an incremental fit index, the Goodness-of-Fit Index as a goodness of fit index, and the Root Mean Square Error of Approximation as a badness of fit index.

The results of all four of these indices were satisfactory, confirming the TPB as a sound model with the sample data. This result was expected given the wide recognition and empirical support of the TPB in examining entrepreneurial intention (Autio et al., 2001; Gird & Bagraim, 2008; Kolvereid, 1996; Kristiansen & Indarti, 2004; Krueger et al., 2000; Luthje & Franke, 2003; Rusteberg, 2013; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008).

This result confirms the support for the TPB as a model frequently used to investigate entrepreneurial intention (Turton & Herrington, 2012), and further agrees with the findings of Van Gelderen et al. (2008) in that the TPB is a complete model.

This result further demonstrates that the TPB can continue to be used in studies of entrepreneurial intention, and importantly, the TPB can be employed using the method of structural equation modelling to analyse the sample data.

6.2.2 Model Significance

The second step of the data analysis process aimed at understanding the significance of the predictive strength of the TPB in predicting entrepreneurial intention. Results demonstrate that the attitude toward the behaviour construct has an insignificant predictive strength on intention ($p = 0.858$); the subjective norms construct has an insignificant predictive strength on intention ($p = 0.372$), yet the perceived behavioural construct provided significant predictive strength on intention ($p = 0.004$).

These results demonstrate that the TPB is not a significant predictor of entrepreneurial intention within the South African Jewish Community, and as such, the null hypothesis is rejected.

Although the findings of this research report dispute the TPB as a significant predictor of entrepreneurial intention within the Jewish Community of South Africa, Ajzen (2011) explains that the relative importance of each of the components of the TPB is likely to vary from one behaviour to another and from one population to another.

According to Ajzen (2011), the TPB does not suggest that attitude toward the behaviour, subjective norms and perceived behavioural control will each make a significant prediction of intention, and that the relative importance of these components is likely to vary from one behaviour to the next and from one population to another.

Ajzen (2011) continues to explain that a lack of predictive significance merely indicates that for that specific behaviour in that population, the components that provide insignificant predictive strength are not important considerations in the formation of intention.

Perceived behavioural control is the only construct that provided significant predictive strength on intention indicating that within this community, the

function of all the control beliefs of the individual which create one's self efficacy, is an important consideration in the formation of entrepreneurial intention.

Perceived behavioural control, the function of all the control beliefs which create one's self efficacy and determine the individual's ability to succeed in the behaviour in question; entrepreneurial activity, has a powerful predictive strength of entrepreneurial intention within the South African Jewish Community. It appears that within this community which is commonly regarded to have high levels of entrepreneurial activity, the confidence of the individual to succeed is the most powerful consideration in the formation of entrepreneurial intention.

Previous studies have recorded similar findings in that perceived behavioural control has been found to be the strongest predictor of entrepreneurial intention (Autio et al., 2001; Kolvereid, 1996; Rusteberg, 2013; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008). This potentially demonstrates that individuals form entrepreneurial intention based solely on their perception of their ability to succeed in the behaviour, not taking into account the subjective norms and their attitude toward the behaviour.

Subjective norm, the function of normative beliefs which represent the perceptions of the South African Jewish Community regarding entrepreneurial activity, together with the individual's motivation to comply with these societal norms, had an insignificant predictive strength on entrepreneurial intention. This indicates that individuals within this community do not account for the societal norms and pressures, either positive or negative, when forming entrepreneurial intention.

Subjective norms have failed to provide significant predictive strength of entrepreneurial intention in prior research (Autio et al., 2001; Krueger et al.,

2000). Krueger et al. (2000) further proposed that this component of the TPB offered little input to the model as a whole.

A possible consideration to this could be the rise of an individualism in recent years as opposed to the collectivism approach of prior years; as individuals seem to pursue dreams of an individual nature which by nature negate the need to satisfy subjective norms and pressures.

Attitude toward the behaviour provided insignificant predictive strength on entrepreneurial intention within the South African Jewish Community. This indicates that the individuals within this community do not consider their overall evaluation of entrepreneurial activity when forming entrepreneurial intention.

This result does not cooperate with prior research in which attitude toward the behaviour has provided significant predictive strength on entrepreneurial intention.

It seems that within the South African Jewish Community, only the perceived behavioural control of entrepreneurial activity; the confidence of the individual to succeed as an entrepreneur is the only factor taken into consideration when forming entrepreneurial intention. This research report suggests that subjective norms and attitude toward the behaviour are factors that are not taken into consideration when forming entrepreneurial intention.

As perceived behavioural control refers to the individuals perception around whether the individual has the necessary resources, opportunities, capabilities and power to perform the behaviour in question (Ajzen, 1991), the research suggests that individuals within the South African Jewish Community who are considering entrepreneurial activity, form intention based solely on their perceived ability to succeed.

Perceived behavioural control refers to the individual's perception of their ability, and the perceived ease or difficulty of becoming an entrepreneur. Although there is limited literature in the domain of the South African Jewish Community, insight can be drawn as to what contributes to perceived behavioural control within the South African Jewish Community to the extent that it provides significant prediction of entrepreneurial intention. Having the necessary resources, opportunities, capabilities and power to become an entrepreneur can create convincing perceived behavioural control.

The South African Jewish Community is not only amongst the most educated communities in South Africa, it is also said to be amongst the most successful and wealthiest in the Jewish world (Board of Jewish Education, 2012; Milner, 2013). Milner (2013) adds that the South African Jewish Community make the most out of informal networks of family, friends and acquaintances who like other ethnic groups, tend to be supportive of their counterparts. If one views these points together, one can understand that this community has formed an informal network consisting of highly educated and wealthy individuals who are supportive of each other.

The resources required to initiate entrepreneurial activity predominantly include but are not limited to financial, intellectual and informational resources. Being a member of an informal network of highly educated and wealthy individuals would provide ease of access to capital, finance, skills and information, potentially increasing the perceived behavioural control of entrepreneurial activity.

Opportunity alertness and the ability to recognise, develop and evaluate an opportunity also play a role in strengthening perceived behavioural control. Being a member of one of the most educated communities in South Africa, in addition to being a member of a highly educated and wealthy informal

network provides not only enhanced opportunity alertness, but also the intellect and skill to develop and evaluate an opportunity.

The high levels of education within the South African Jewish Community provide members of the community the competence and skill required to satisfy the capabilities essential for a strong perceived behavioural control.

In addition to the resources, opportunities and capabilities, the role that family plays in the South African Jewish Community possibly provides for further insight into the strength of perceived behavioural control on entrepreneurial intention. This community has very strong and close-knit families, with many entrepreneurs in these families. Not only would constant exposure to entrepreneurship and especially successful entrepreneurs provide further reinforcement of perceived behavioural control, but entrepreneurial role models in many families would fortify this.

Empirically, the TPB failed to provide significant predictive power for entrepreneurial intention within the South African Jewish Community. This raises two possible additional explanations; on the one hand, the South African Jewish Community, which has been commonly regarded as entrepreneurial, might have low levels of entrepreneurial intention. On the other hand, this research report might reflect the GEM reports assertion that the average rate of entrepreneurial intention for South Africa is far below the benchmark for efficiency driven economies (Amoros & Bosma, 2013).

6.3 Conclusion

In conclusion, although the TPB has been confirmed as a sound model, it provided insignificant predictive strength of entrepreneurial intention within the South African Jewish Community.

In light of this, the research hypothesis is rejected; the TPB is not a significant predictor of entrepreneurial intention within the South African Jewish Community.

This chapter discussed the results of the research in relation to the literature presented in Chapter Two, and the research hypothesis formulated in Chapter Three. The results, although inconsistent with prior research, provide valuable findings for future research, which will be discussed in the following chapter.

7. Chapter Seven – Conclusion

7.1 Chapter Introduction

The preceding chapter discussed the results of the research. This chapter serves to conclude the research by reviewing the research objective, outlining the findings of the research and discussing recommendations to stakeholders and suggestions for future research based on the findings.

7.2 Research Objectives

The South African government launched its long term strategic NDP in 2010. With the objective of economic growth coupled with a reduction of unemployment and the eradication of poverty by 2030, the plan was met with support from all South Africans. Unfortunately, the South African economy faces challenges of high levels of unemployment, low levels of growth, and growing inequality.

With entrepreneurial activity recognised as a fundamental driver of organic economic advancement, job creation and poverty alleviation, and while more specifically, high impact entrepreneurs are viewed to contribute significantly to job creation and wealth creation, entrepreneurial activity is seen as the critical success factor of the NDP.

As a result, stakeholders should be creating an environment in which the determinants of entrepreneurship and ideally high-impact entrepreneurship can be fostered. Entrepreneurial intention is seen as the precursor for entrepreneurial activity, and the results of the GEM report demonstrated that South Africa's rate of entrepreneurial intention was well below the average rate for efficiency driven economies.

This revealed the challenge that faces South Africa; not only is economic development slow, but levels of entrepreneurial intention are low. Using the TPB as a testable and theory driven method to predict entrepreneurial intention, the researcher aimed to prove the significance of the TPB in predicting entrepreneurial intention in a community not only regarded to be highly entrepreneurial, but one that has produced a large amount of high-impact entrepreneurs; the South African Jewish Community.

If the TPB proved to be a significant predictor of entrepreneurial intention in a community not only regarded to be highly entrepreneurial but also to produce a large amount of high impact entrepreneurs, the determinants of entrepreneurial intention could be identified, isolated and fostered to influence government, policy makers and stakeholders.

As such, the research objective was to examine the significance of the TPB as a predictor of entrepreneurial intention within the South African Jewish Community.

7.3 Research Findings

Using structural equation modelling, the model fit of the TPB was deemed to be structurally sound after a model fit assessment, while the TPB failed to provide significant predictive ability of entrepreneurial intention within the South African Jewish Community. A deeper analysis revealed that perceived behavioural control provided significant predictive strength on entrepreneurial intention, while attitude toward the behaviour and subjective norms provided unsatisfactory predictive strength on entrepreneurial intention.

The results do not disprove the TPB as a predictive model, but rather provide for insight into the population; the South African Jewish Community

do not consider their attitude toward entrepreneurial activity and the subjective norms surrounding entrepreneurial activity in the formation of entrepreneurial intention, only their perceived behavioural control and whether they are equipped with the necessary resources, opportunities, capabilities and power to become entrepreneurs.

7.4 Implications of the Research Findings

The research findings can either suggest that the Jewish Community of South Africa has low levels of entrepreneurial intention, which although difficult to accept as this community currently exhibits high levels of entrepreneurial activity, is an interesting observation, and would infer that in the coming years, the levels of entrepreneurial activity within this community will reduce.

Another lens with which to view the research findings is that the concept of perceived behavioural control is the most important determinant of entrepreneurial intention within this community. If this community is as highly entrepreneurial as it is regarded to be, then this concept, which refers to the individual's self-belief that they have the necessary resources, opportunities, capabilities and power to become entrepreneurs, needs to be analysed in order to understand the determinants of the self-efficacy that individuals within this community exhibit.

By doing so, government, stakeholders and policy makers could foster the determinants of this self-efficacy within other communities in South Africa; enabling these communities to achieve not only high levels of entrepreneurial intention, but more importantly the levels of entrepreneurial activity required in order to meet the goals of the NDP. This leads the researcher to provide recommendations for future research.

7.5 Recommendations for Future Research

Following on from the limitations of the current research, future research should improve the sampling technique employed by this research to ensure that the sample is more representative of the population.

As the findings from this research suggest that perceived behavioural control is the only consideration when forming entrepreneurial intention within the South African Jewish Community, future research should focus on the determinants and influences of the perceived behavioural control of entrepreneurial activity within this community.

Perceived behavioural control refers to the individual's perception of containing or having access to the necessary resources, opportunities, capabilities and power to become an entrepreneur. This could include but is not limited to access to capital, education, networking and the perceived ability to succeed in firm creation. A deeper understanding of the factors that lead to a strong perceived control of entrepreneurship could potentially reveal elements that can assist in the formation of entrepreneurial intention; such as higher levels of education, training, accessible capital and networking.

Future research should also examine the reasons as to why attitude toward the behaviour and subjective norms are not considered in the formation of entrepreneurial intention within the South African Jewish Community. This would provide interesting insight into this community and could potentially uncover some elements of the culture of this community that play a role in the formation of entrepreneurial intention.

7.6 Conclusion

This research report found that the TPB was not a significant predictor of entrepreneurial intention within the South African Jewish Community. The research also revealed that the South African Jewish Community do not consider their attitude toward the behaviour or subjective norms in the formation of entrepreneurial intention, but rather only perceived behavioural control.

As a community that is regarded to be highly entrepreneurial, these results provide interesting insight into the field of entrepreneurship, and specifically the stream of entrepreneurship literature focussed on the entrepreneur as an individual.

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9. Appendices

Appendix A: Survey Questionnaire

**Gordon Institute
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University of Pretoria

The Theory Of Planned Behaviour

The purpose of this research is to understand the determinants of entrepreneurial activity. The survey should not take more than **10 minutes** of your time. Your participation is voluntary and you can withdraw at any time without penalty.

Please note that all data will be kept confidential. By completing this survey, you indicate that you voluntarily participate in this research.

If you have any concerns, please feel free to contact the researcher David Myers at dovmyers@icloud.com or the research supervisor Dr. Jonathan Marks at marksj@gibs.co.za.

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The Theory Of Planned Behaviour

Please indicate your gender:

Female Male

Please indicate your age:

Which of the following in your family are entrepreneurs:

<input type="checkbox"/> Mother	<input type="checkbox"/> Aunt
<input type="checkbox"/> Father	<input type="checkbox"/> Cousin
<input type="checkbox"/> Sister	<input type="checkbox"/> Grandfather
<input type="checkbox"/> Brother	<input type="checkbox"/> Grandmother
<input type="checkbox"/> Uncle	<input type="checkbox"/> None

For each question, please select the response that is most applicable to you:

	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree
I am confident I would be a successful entrepreneur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be easy to begin an entrepreneurial career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the resources, opportunities, capabilities and power to become an entrepreneur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could take full advantage of my education if I became an entrepreneur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each question, please select the response that is most applicable to you:

	Highly Undesirable	Undesirable	Slightly Undesirable	Neutral	Slightly Desirable	Desirable	Highly Desirable
If I became an entrepreneur, my family would find it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I became an entrepreneur, my community would find it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I became an entrepreneur, my colleagues would find it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I became an entrepreneur, people close to me would find it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I view a career in entrepreneurship as	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my child were to become an entrepreneur, I would find it to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For people in my community, with my background, I personally consider entrepreneurship to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each question, please select the response that is most applicable to you:

	Not at all likely	Not very likely	Likely	Very likely	Already started a firm
I will be self-employed on a full time basis within 1 year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will be self-employed on a part time basis within 1 year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will be self-employed on a full time basis within 5 years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will be self-employed on a part time basis within 5 years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>