Gordon Institute of Business Science
University of Pretoria

The role of push and pull motivation factors on total early-stage entrepreneurial activity (TEA) in the Built Environment sector

A research submitted

by

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ABSTRACT

The study investigates the prevalence of Push motivation factors and Pull motivation factors on Total Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector. The study also seeks to establish if Ajzen's Theory of Planned Behaviour is a suitable model for predicting Entrepreneurial Intentions (EI) within the Built Environment sector as well as measures Entrepreneurial Intentions amongst the respondents.

The research design employed for this study was quantitative, exploratory and deductive. Structured and validated questionnaires were created and distributed from the survey monkey e-platform, to entrepreneurs providing professional services within the Built Environment sector. The study targeted a total of 130 responses. Feedback was received from a total of 80 respondents, with a total of 63 usable responses.

Existing research argues that push motivation factors are significant drivers of TEA in developing countries. The study has determined the following in regard to the Built Environment sector.

- Ajzen's Theory of Planned Behaviour (TBP) can be utilised to predict Entrepreneurial Intention (EI);
- Entrepreneurial Intention (EI) can be considered a precursor for choosing self-employment for Built Environment professionals; and
- Pull motivation factors, measured in the form of job-satisfaction, are more prevalent than Push motivation factors, measured in the form of pre-entrepreneurial job-dissatisfaction.

Outcomes from this study are fundamental in addressing the challenge of limited TEA within the professional services sector. The limitations of the study presented in section 7.4, in particular, not being able to generalize the findings into the greater population, present an opportunity for future research. This study presents an opportunity to reconstitute the research to focus on Entrepreneurial Intention (EI) and its antecedents.

KEY WORDS: Entrepreneurial Intention (EI); Total Early-Stage Entrepreneurial Activity (TEA); Built Environment Professionals; Push and Pull motivating factors; Ajzen's Theory of Planned Behaviour (TBP).

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.

05/11/2017

Name: **Date:**

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ABBREVIATIONS

DTI	DEPARTMENT OF TRADE AND INDUSTRY
EI	ENTREPRENEURIAL INTENTIONS
GDP	GROSS DOMESTIC PRODUCT
NDP	NATIONAL DEVELOPMENT PLAN 2030
SEE	SHAPERO AND SOKOL'S ENTREPRENEURIAL EVENT MODEL
SMME	SMALL MEDIUM AND MICRO ENTEPRISES
TPB	AJZEN'S THEORY OF PLANNED BEHAVIOUR

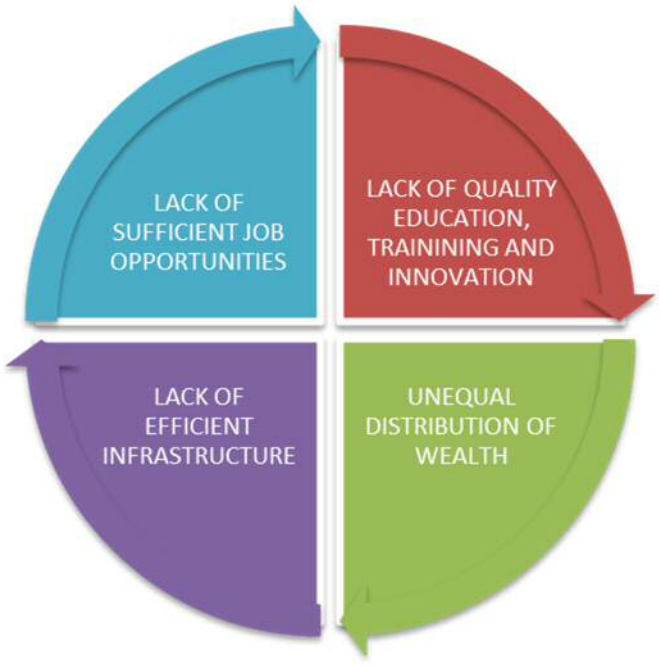
1.0 CHAPTER ONE - INTRODUCTION TO THE RESEARCH PROBLEM

1.1 INTRODUCTION

The biggest challenge facing the Republic of South Africa (RSA) is slow economic growth. The poor economic growth facing the country today is partly attributable to the countries dark history. Prior to 1994, the economic climate of the RSA was non-inclusive, less dynamic and wealth was not shared equitably amongst its citizens. This resulted in the lack of quality education, training and innovation, unequal distribution of wealth, lack of efficient infrastructure and most importantly, the lack of sufficient job opportunities, all of which are key drivers of a sustainable and healthy economic growth.

Figure 1.1 indicates some of the current key challenges to sustainable economic growth in the RSA which came about as a result of policies implemented by the government of the past.

Figure 1. 1 - Key Challenges to Sustainable Economic Growth in the RSA

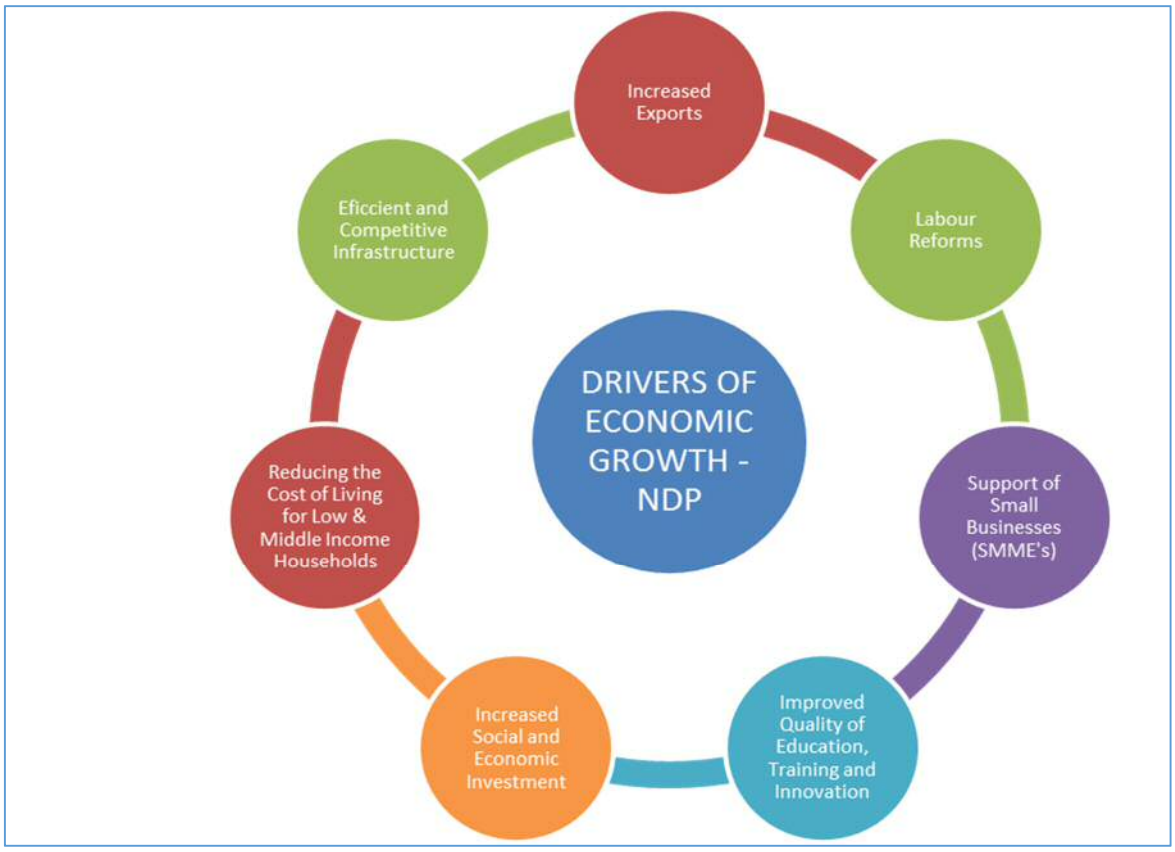


Source: National Planning Commission (2015)

The National Development Plan: Vision 2030 (NDP) was launched in 2012 with an aim to create an economy that is more inclusive, dynamic and in which the benefits of economic growth are shared equally amongst its citizens (National Planning Commission, 2015). The NDP seeks to drive sustainable economic growth through the

creation of new job opportunities, promoting a culture of increased saving which will in turn drive increased investments, and also through the increased export of goods and services into the foreign market. Over four years after its implementation, the RSA remains a very unequal society, with a Gini coefficient sitting at 0.65 (World Bank, 2016) and very high unemployment rates (especially youth and women unemployment). Figure 1.2 below identifies the key tools and instruments identified in the NDP as drivers of economic growth towards achieving the 2030 vision.

Figure 1. 2 - Proposed tools and instruments for stimulating economic growth in the RSA



Source: National Planning Commission (2015)

The key drivers of economic growth indicated in Figure 1.2 can be viewed as 'economic levers' which must be activated simultaneously in order to stimulate rapid economic growth. This study focuses on one of these 'economic levers', namely the support of Small, Medium and Micro-Enterprises (SMME's). A positive response to the requirements and objectives of the NDP in this regard can be achieved through a country-wide increase in entrepreneurial activity.

This study seeks to gain a deeper understanding of the factors which contribute to increased entrepreneurial activity within the professional services sector, in particular in the Built Environment sector. There is a need for improved understanding of the key factors that drive entrepreneurial activity within this sector as a primary contributor towards achieving the goals of the NDP.

1.2 PROBLEM STATEMENT

Slow economic growth is one of the key challenges faced in the Republic of South Africa (RSA). In the fourth quarter (Q4) of 2016, the Gross Domestic Product (GDP) shrunk by -0.3 per cent (Statistics South Africa, 2017). Entrepreneurial activity is one of the major engines for stimulating economic growth. Small and Medium Size Enterprises (SMEs) can play an integral role in this regard. There is therefore an urgent need for an improved understanding of how the rate of entrepreneurial activity in the RSA can be increased. This can be achieved by gaining an improved understanding of some of the key drivers of entrepreneurial activity in the different market sectors within the RSA.

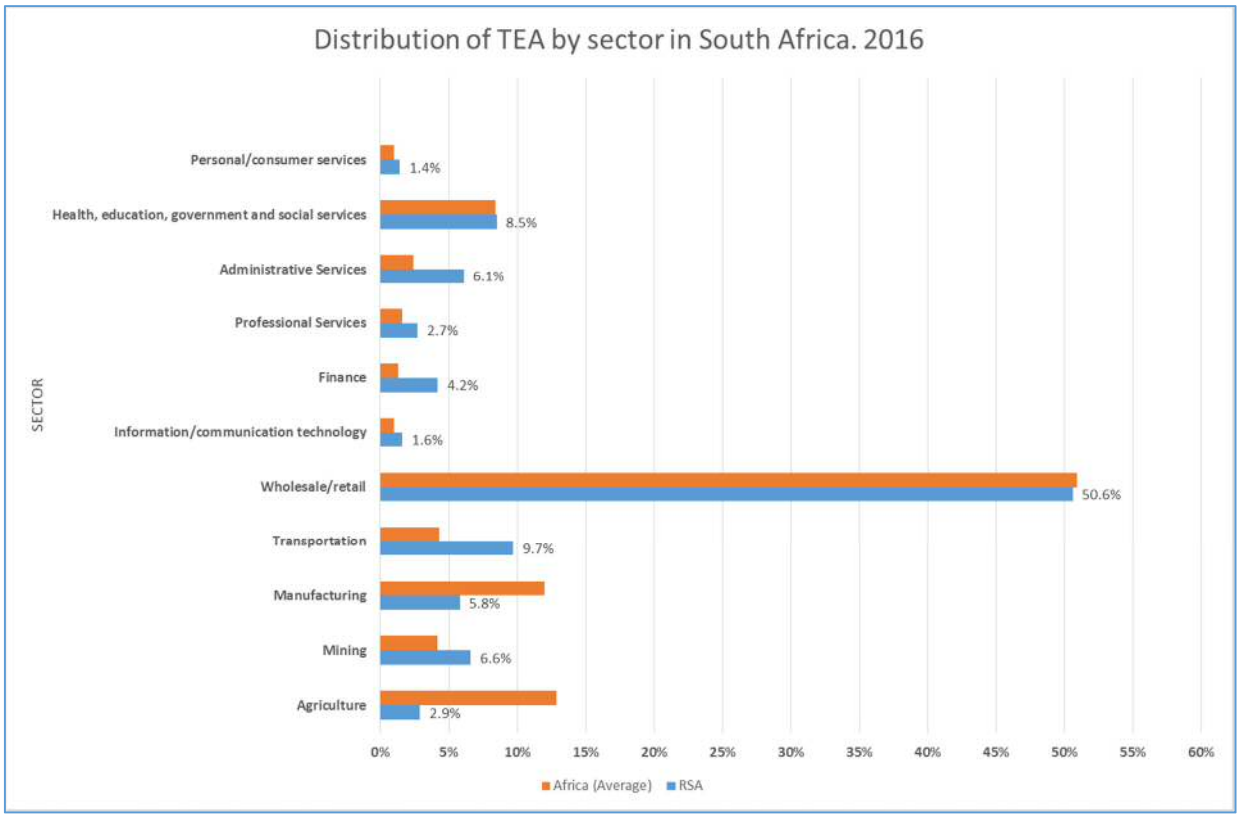
Entrepreneurial activity is the action of pursuing the act of being entrepreneurial i.e. the pursuit of value-creation through economic activity, by identifying and exploiting new products, processes and/or markets (Kelley, Singer & Herrington, 2011). Currently, the RSA has persistently low levels of entrepreneurial activities in comparison to other African countries who participated in the Global Entrepreneurship Monitor (GEM) survey in 2015 (Herrington & Kew, 2016) and also in 2016 (Global Entrepreneurship Monitor, 2017). This could be a major contributor to the current shrinking GDP in the RSA.

Entrepreneurial Intention (EI) in the RSA is also considerably low compared to other African countries. This is despite the advanced state of the RSA economy in comparison to many other African countries. Surveys conducted by the GEM in 2015 indicated that Entrepreneurial Intentions in the RSA could be as low as 3.6 times the African average (Herrington & Kew, 2016). This value has improved slightly, to as low as 2.6 times the African average in a more recent survey conducted by the GEM in 2016 (Global Entrepreneurship Monitor, 2017).

The Total Early-stage Entrepreneurial Activity (TEA) rate is defined as the prevalence rate of individuals in the working age population who are actively involved in business start-ups, either in the phase of starting a new firm (nascent entrepreneurs), or in the phase spanning 42 months after the birth of the firm (Herrington & Kew, 2016). Figure 1.3 indicates the distribution of the TEA rate by sector in 2016 in the RSA

compared with the African average during the same period. Information provided in Figure 1.3 indicates that, compared to other African countries who participated in the GEM's 2016 survey (Global Entrepreneurship Monitor, 2017), the RSA is competitive in TEA rate terms in all market sectors excluding Agriculture and Manufacturing.

Figure 1. 3 - Distribution of TEA by Sector in South Africa



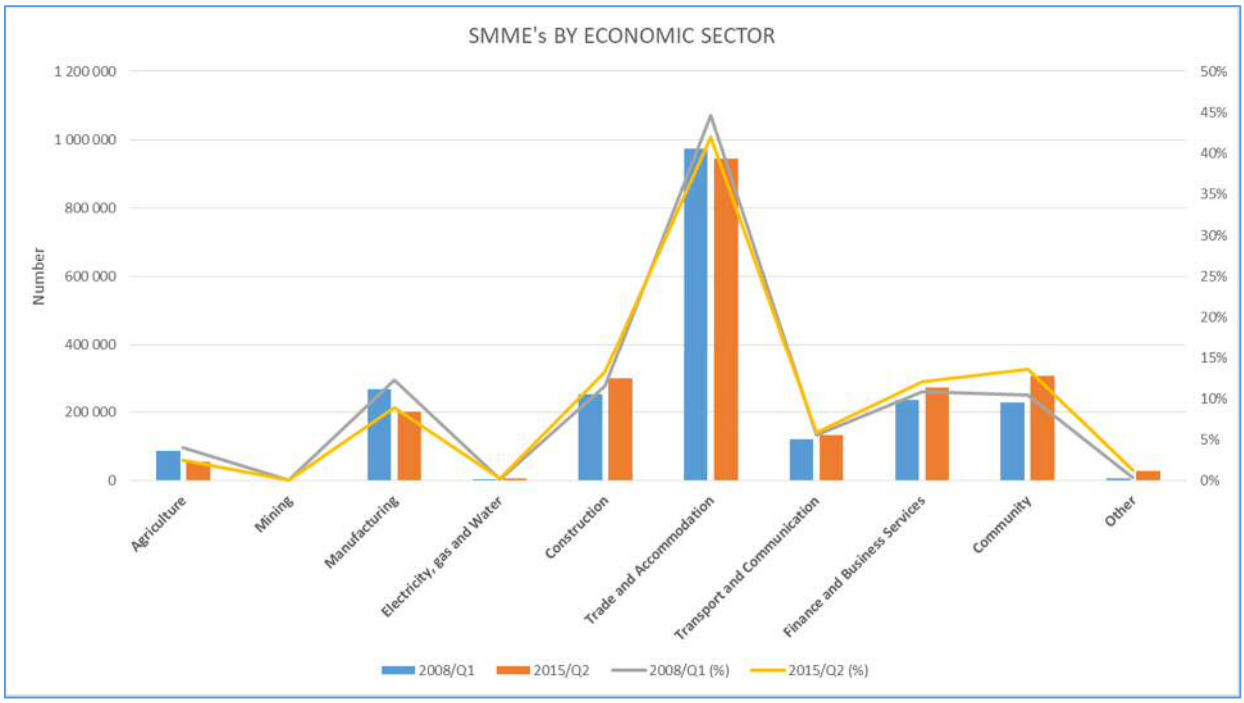
Source: Global Entrepreneurship Monitor (2017)

Having identified entrepreneurial activity as one of the major engines for stimulating economic growth, and based on the shrinking GDP observed in the fourth quarter (Q4) of 2016 (Statistics South Africa, 2017), the questions worth asking then in this regard are if the current TEA rate in the RSA is sufficient across all markets and also if competitiveness (see Figure 1.3) in this context translates to sufficient entrepreneurial activity? The answer to these questions is a definite and emphatic '**NO**'. Consequently, it can be argued that there is a definite and immediate need for increased entrepreneurial activity in most market sectors in the RSA.

In the RSA, the Department of Trade and Industry (DTI) classifies SMMEs on the basis of their annual turnover (Bureau for economic research, 2016). Over the last seven

years, the number of SMMEs in the RSA increased by 3 per cent, which is significantly less than the 14 per cent expansion in GDP over the same period (Bureau for Economic Research, 2016). Figure 1.4 indicates the distribution of SMMEs in the RSA by main economic sector. The data presented in Figure 1.4 agrees with the earlier observation by Herrington and Kew (2016) that entrepreneurial activity in the RSA is on the decline. Focusing on increasing the number of sustainable SMMEs in the RSA as a means of driving economic growth is therefore essential.

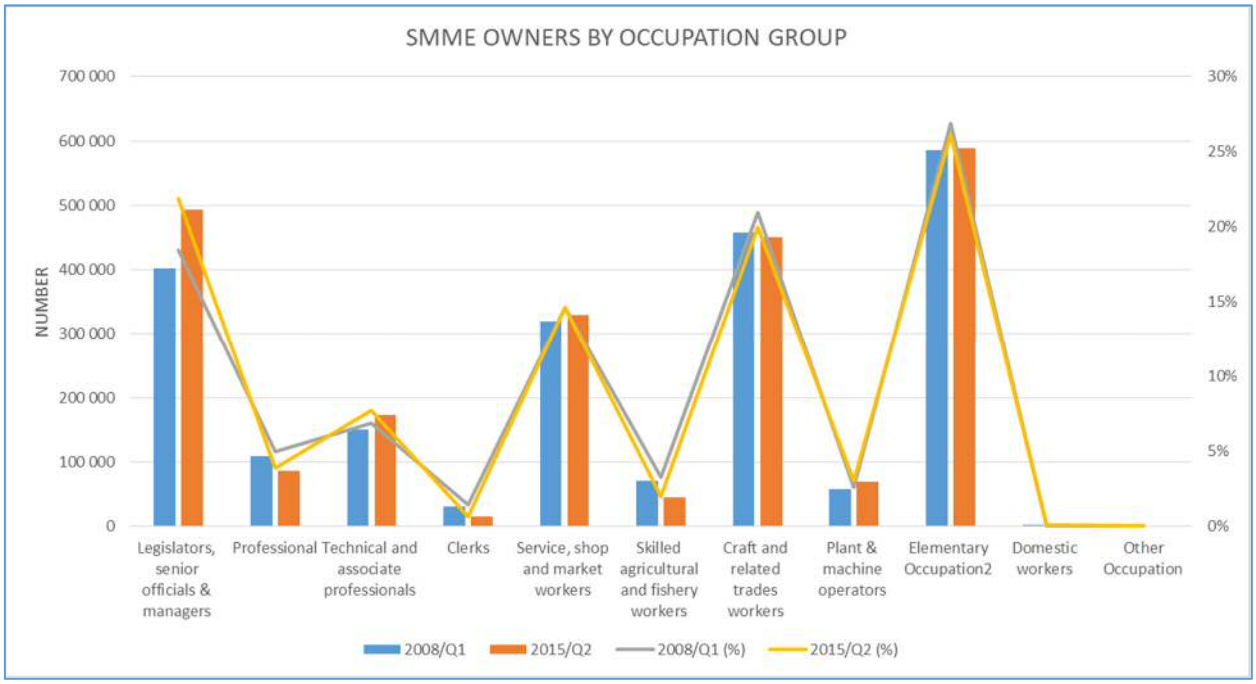
Figure 1. 4 - Distribution of SMMEs by Main Economic Sector



Source: Bureau for economic research (2016)

Figure 1.5 indicates the SMME owner distribution by occupation group in the RSA in the first quarter of 2008 (Q1) and the second quarter of 2015 (Q2). The data indicates a decrease in the number of SMMEs in the professional services sector during this period. The number of professional occupations declined by 20 per cent between 2008 and 2015, though SMME owners in technical professions increased by 16 per cent (Bureau for Economic Research, 2016). This is also consistent with the findings presented by Herrington and Kew (2016) that the professional services sector (see Figure 1.3) has a low TEA rate.

Figure 1. 5 - SMME Owner Distribution by Occupation Group

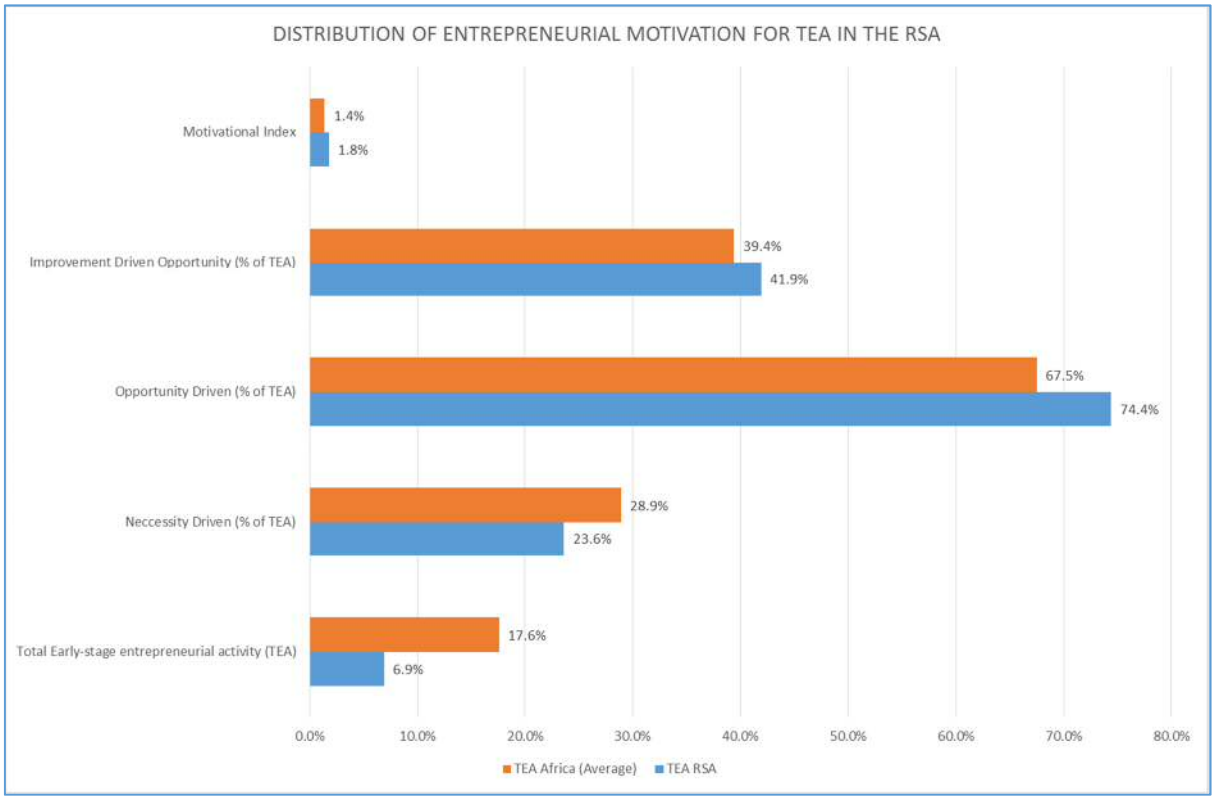


Source: Bureau for Economic Research (2016)

Information provided in Figure 1.3, Figure 1.4 and Figure 1.5 indicates that there is very limited TEA in the Professional Services sector in comparison to the other key market sectors in the RSA. Professional services are occupations in the tertiary sector of the economy which require expertise in the Arts or Sciences fields. These include, amongst others, accountants, actuaries, architects, dentists, engineers, financial professionals, lawyers and doctors. Built Environment professionals (see section 1.3) are comprised of, amongst others, Engineers and Architects. Consequently, it is logical to expect an increase in the TEA of Built Environment professionals to have a positive effect on the overall TEA of the Professional Services sector. The Professional Services sector has a potential to contribute significantly to the economic performance of the RSA; thus it is important therefore to seek to increase the TEA in the specific industry of interest (i.e. Built Environment) through improved understanding of the drivers of TEA of the Built Environment sector in the RSA.

Figure 1.6 presents a distribution of entrepreneurial motivation for TEA in the RSA compared to other African countries who participated in the Global Entrepreneurship Monitor 2016 survey (Global Entrepreneurship Monitor, 2017).

Figure 1. 6 - Distribution of Entrepreneurial Motivation for TEA in the RSA



Source: Global Entrepreneurship Monitor (2017)

The values of TEA presented in Figure 1.6 concur with the findings of Herrington and Kew (2016) that there is limited TEA in the RSA compared to other African countries who participated in the Global Entrepreneurship Monitor 2016 survey (Global Entrepreneurship Monitor, 2017).

1.3 AIMS AND OBJECTIVES OF THE STUDY

The study seeks to gain insights into the Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence on the decisions behind choosing self-employment.

According to the Council for Built Environment (CBE) Act No. 43 of 2000, Built Environment Professionals means persons who are registered as such in terms of any of the following Acts:

- Architectural Profession Act, 2000;
- Project and Construction Management Professions Act, 2000;

- Engineering Profession Act, 2000;
- Landscape Architectural Profession Act, 2000;
- Property Valuer's Profession Act, 2000; and
- Quantity Surveying Profession Act, 2000

The study will focus on the Push and Pull motivating factors and their role in the decision to choose self-employment. The primary aims of the study are as follows:

- To identify the role of Entrepreneurial Intention (EI) as a precursor for choosing self-employment in the Built Environment sector;
- To identify the most significant motivation factors for Total Early-Stage Entrepreneurial Activity in the Built Environment sector, with emphasis on Push and Pull motivating factors.

1.4 MOTIVATION FOR THE STUDY

Many entrepreneurship scholars have conducted extensive research on Entrepreneurial Intentions (EI) and its antecedents, and suggest that cultural context can shape attitudes and entrepreneurial intentions. They seek to explain this within the framework of Hofstede's (1998) Cultural Dimensions. They also agree that gender has a role on Entrepreneurial Intentions, e.g. it is generally accepted that men have stronger Entrepreneurial Intentions than women (Shinnar, Giacomin, & Janssen, 2012). Other scholars' findings, however, reveal a proliferation of large-scale empirical studies focused on male/female comparisons, often with little detail provided on industry sector or sampling methods, and with either a weak or missing feminist critique whatsoever (Henry, Foss, & Ahl, 2016) and argue that these findings cannot be generalised.

Entrepreneurship researchers have also carried out numerous studies aimed at determining the role of Entrepreneurship Education and Training (EET) on Entrepreneurial Intentions, and have, in most cases, established a positive correlation between EET and Entrepreneurial Intentions. Examples of these researchers are Bae, Qian, Miao and Fiet (2014) and Martin, McNally and Kay (2013). In order to influence Entrepreneurial Intentions, entrepreneurship educators can primarily draw on two parameters, namely, changes in 'soft' outcomes and inducing changes in the scholars 'concrete' knowledge and skills in new venture creation (Fretschner & Weber, 2013). Similar studies conducted amongst scientists and engineers show that EET raises the

overall intention to start a business (Entrepreneurial Intentions), and that inspiration (to aspire to be self-employed) is the most influential benefit derived by scholars from entrepreneurship programmes (Soutaris, Zerbinati, & Al-Laham, 2007). Consequently, in order to create sustainable economic growth through increased entrepreneurship, public policy should be designed to encourage training (Castano, Mendez, & Galindo, 2016).

Extensive research has also been focused on the prediction of Entrepreneurial Intention, with emphasis on Ajzens Theory of Planned Behaviour (TPB) and Shapero's SEE models for predicting Entrepreneurial Intentions, which have been confirmed by many scholars to be similar in many ways (Carsrud & Brannback, 2011; Krueger, Jr., Reilly, & Carsrud, 2000; Minola, Criaco, & Obschonka, 2016). However, Shapero's SEE model is not well tested in the domain of entrepreneurial research, according to Krueger Jr. et al. (2000) and is therefore not the preferred method for predicting Entrepreneurial Intention for the purposes of this research. The theoretical specifications of the TPB, on the contrary, are more consistent and detailed and has been tested, advanced and criticised in many studies (Gelderen, Brand, Praag, Bodewes, Poutsma & Gils, 2008), and is therefore the preferred method for predicting Entrepreneurial Intention for the purposes of this research.

Figure 1.6 indicates the distribution of TEA by motivation in the RSA compared to other African countries who participated in GEM survey in 2016 (Global Entrepreneurship Monitor, 2017). According to the data presented in Figure 1.6, the motivation index for the RSA is lower in comparison to the African average. The figures indicate that entrepreneurs in the RSA are mostly opportunity driven, which is consistent with the RSA's stronger economic position in comparison to many African states. The findings also suggest that outcomes from this study will identify Pull motivating factors as the most prevalent motivational factors for choosing self-employment in the Built Environment sector (see section 2.4 for further discussions).

Very limited research has been carried out in recent years with either an RSA, a developing country context or specific to the Professional Services sector, in particular, regarding Built Environment professionals. Outcomes from many studies are generalised onto very broad contexts without second thoughts, and this can lead to misleading conclusions. This study will seek to duplicate these findings in a local context and further narrow the context to the Professional Services sector, particularly with regard to Built Environment professionals.

1.5 BUSINESS RELEVANCY

Entrepreneurial activity is sector driven and supported by policy framework aimed at creating an environment that is friendly to drivers of economic growth (e.g. SMMEs). Public policy can play a significant role in encouraging or discouraging entrepreneurial activity, e.g. through tax changes and expenditure policies (Castano, Mendez, & Galindo, 2016). Properly designed public policy can promote self-employment by creating the right environment to encourage individuals to form start-ups, by promoting business opportunities (Castano et al., 2016).

Factors that will be impacted positively by properly designed public policy will be dominated by Pull motivating factors (see section 2.4). Current employers of aspiring entrepreneurs play a significant role in promoting Push motivating factors, particularly with regard to current job-dissatisfaction (see section 2.5). According to the Bureau for Economic Research (2016), SMMEs contributed 18 per cent to the RSA's Gross Value Added (GVA; the sum of all wages), Net Operating Surplus (NOS) and consumption of fixed capital in the fourth quarter (Q4) of 2010 and 22 per cent of the same in the second quarter (Q2) of 2015. Increased entrepreneurial activity in any of the sectors will result in an increased number of SMMEs which will help drive these figures even higher, thereby contributing to sustainable economic growth.

This study targets Built Environmental Professionals who are entrepreneurs, and either running their own professional practice as founding members or have purchased executive shares within a practice and are involved in its day to day running. Data will be gathered using structured and validated questionnaires designed to answer the three key aims of the research (see section 3.0). The data gathered from this study will provide an insight in this regard and can be generalised into the greater population and be utilised to inform the relevant policy decisions at organisational and even at national level. Key factors that will be considered in this study are Push and Pull motivating factors, discussed in section 2.0. Factors identified as having a more significant influence in the TEA rate of Built Environment professionals (Push or Pull factors) will be identified and recommended for future research.

1.6 CONCLUSION

It is common knowledge that the biggest challenge facing the Republic of South Africa is slow economic growth; that the objectives set out in the National Development Plan: Vision 2030 are not being achieved, and also that the RSA is facing a shrinking GDP.

Data presented herewith indicates that, currently, the RSA has persistently low levels of entrepreneurial activities in comparison to other African countries who participated in the Global Entrepreneurship Monitor surveys conducted in 2015 (Herrington & Kew, 2016) and again in 2016 (Global Entrepreneurship Monitor, 2017). Entrepreneurial Intention in the RSA is also considerably low compared to other African countries. Surveys conducted by GEM in 2015 indicated that Entrepreneurial Intention in the RSA could be as low as 3.6 times the African average (Herrington & Kew, 2016). This value has improved slightly, to as low as 2.6 times the African average in a more recent survey conducted by the GEM in 2016 (Global Entrepreneurship Monitor, 2017). This is despite the advanced state of the economy of the RSA in comparison to many other African countries. The outcomes of this study will shed some light into how the TEA rate can be increased within the professional services sector, by focusing on Built Environment professionals.

2.0 CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

Why do some people choose self-employment whereas some don't? Is Entrepreneurial Intention a mandatory prerequisite to choosing self-employment? In fact, why is it that some people have Entrepreneurial Intentions whereas some don't? Many entrepreneurship scholars have sought answers to these key questions through research and have come to different conclusions.

Self-employment is often seen as an attractive alternative to wage employment, despite lower welfare protection, higher risks and more required effort than the latter (Guerra & Patuelli, 2016). The study seeks to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence on the decision behind choosing self-employment.

Data presented in Chapter 1.0 indicates that, currently, the RSA has persistently low levels of entrepreneurial activities in comparison to other African countries who participated in the Global Entrepreneurship Monitor surveys conducted in 2015 (Herrington & Kew, 2016) and again in 2016 (Global Entrepreneurship Monitor, 2017). It also indicates that, despite the advanced state of the economy of the RSA in comparison to many other African countries, Entrepreneurial Intention in the RSA is considerably low compared to other African countries (as low as 3.6 times and 2.6 times in 2015 and 2016 respectively.

In this chapter, a broader understanding of entrepreneurial intention as a precursor for entrepreneurial activity is sought. Most researchers purport that intent is the best predictor for behaviour. This claim will be tested by studying the existing research, its extent and the findings thereof. The key models of measuring Entrepreneurial Intention will also be assessed, and based on existing research, their suitability for the purposes of this study will be determined. This research will also seek a broader understanding of the motivating factors for converting the Entrepreneurial Intention into the actual action of starting a business, with emphasis on Push and Pull motivation factors.

2.2 ENTREPRENEURIAL INTENTIONS (EI)

The existence of a causal relationship between intent and action is defended by numerous scholars, across a wide spectrum of fields of study. In the entrepreneurship context, Entrepreneurial Intention is identified by many scholars as the primary source

or cause of an entrepreneurial action. Entrepreneurial Intention is the **first focus area of this study**. This study will determine through statistical analysis if the respondents had Entrepreneurial Intention prior to choosing self-employment. It is important to note that not all business opportunities that are stumbled upon result in new venture creation due to the need for entrepreneurial intent, and not all individuals will have such intentions, either before or after they find a new business opportunity (Thompson, 2009). However, the lack of a universally acceptable definition of Entrepreneurial Intention, as well a lack of a consistent use of the term, has hindered earlier research, resulting in inconsistent findings amongst different scholars. A few definitions of Entrepreneurial Intention from various authors will be outlined.

In this context, Gelderen et al define Entrepreneurial Intention as intentions of setting up one's business in the future, rather than as an attitude or interest. Entrepreneurial Intention is also defined as an individual's desire to own or start a business (Bae, Qian, Miao, & Fiet, 2014), and also as a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future (Kautonen, Gelderen, & Tornikoski, 2013). It also refers to the intention to start a new business (Engle et al., 2008). In general, entrepreneurial intent is a cognitive state: a self-acknowledged conviction by a person that they intend to set up a new business venture at some point in the future (Renko, Kroeck, & Bullough, 2012; Thompson, 2009).

The following key factors, as discussed in the following sub-topics, are highlighted in previous entrepreneurship research as having varying degrees of influence on Entrepreneurial Intention.

2.2.1 THE INFLUENCE OF GENDER AND CULTURE ON ENTREPRENEURIAL INTENTIONS

It is generally accepted that men have stronger Entrepreneurial Intentions than women (Shinnar, Giacomin, & Janssen, 2012). Surveys conducted by the Global Entrepreneurship Monitor (GEM) in 2011 also confirm that there are fewer female entrepreneurs in comparison to their male counterparts (Kelley et al., 2011). This is despite the fact that female entrepreneurs tend to set up their ventures with lower start-up capital than men (de Bruin, Brush, & Welter, 2007; Kirkwood, 2009). Cultural values and commonly shared societal norms can also act to shape societal gender roles and stereotypes in terms of the occupations considered appropriate for men and women (Shinnar et al., 2012).

Henry, Foss and Ahl (2016) conducted a systematic literature review of the gender and entrepreneurship literature published in 18 journals over a 30 year period. They argue that research on female entrepreneurship has often been criticised for using male-gendered measuring instruments and lacking explicit feminist analysis. Their findings reveal a proliferation of large-scale empirical studies focused on male/female comparisons, often with little detail provided on industry sector or sampling methods and with either a weak, or no feminist critique whatsoever (Henry et al., 2016).

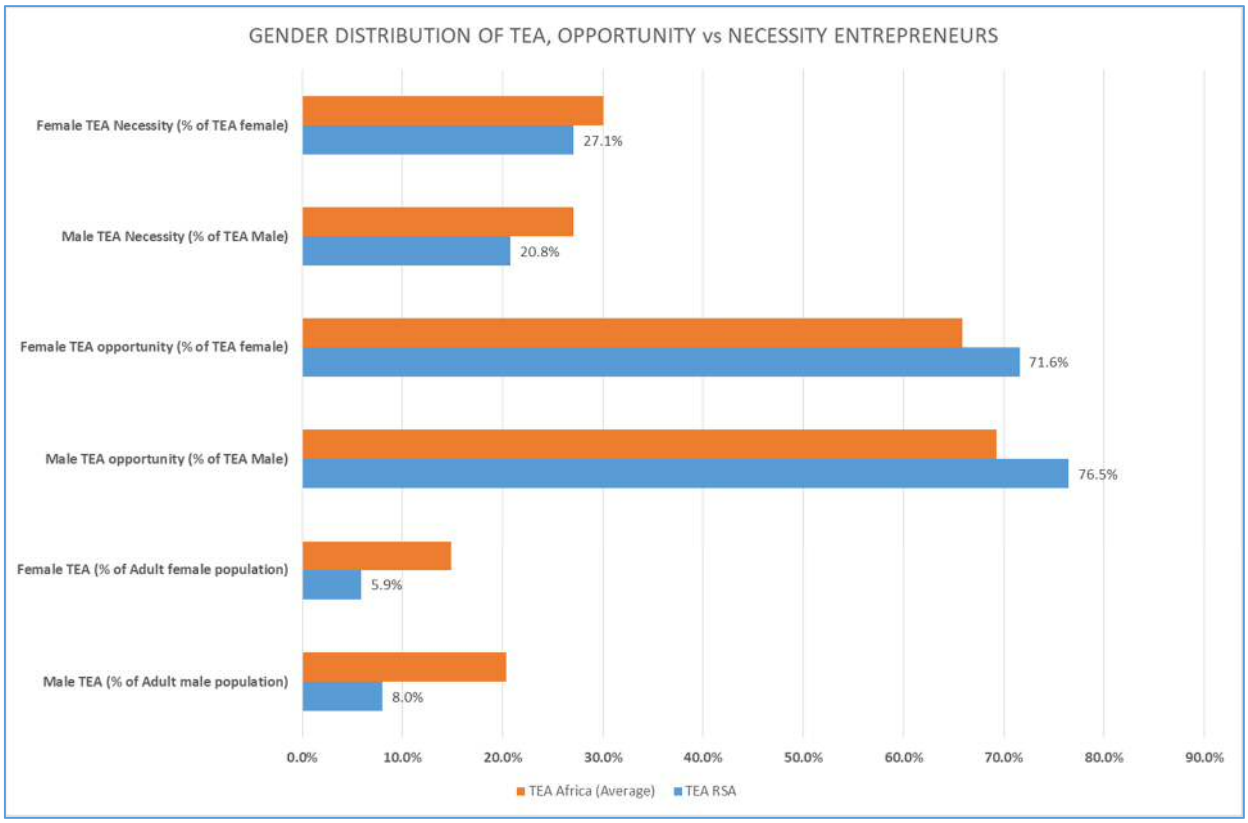
Many researchers suggest that cultural context can shape attitudes and Entrepreneurial Intentions, and seek to explain this within the framework of Hofstede's (1998) cultural dimensions, which differentiates across cultures on four dimensions, namely: Power Distance (the degree of inequality amongst people in a given country); Collectivism vs. Individualism (the degree to which people in a country prefer to act as individuals as opposed to members of groups); Uncertainty Avoidance (the preference of structure over unstructured situations); and Femininity vs. Masculinity (the degree to which tough values like assertiveness and competition prevail over tender values like quality of life and care for the weak) (Busenitz & Lau, 1996). Busenitz and Lau (1996) argue that high Power Distance (PD) promotes entrepreneurial activity and that a culture of Uncertainty Avoidance (UA) discourages entrepreneurial activity. Shinnar et al. (2012) argue that a culture which promotes individualism instead of collectivism (IDV) promotes a focus on materialistic achievement and wealth, which are more supportive of entrepreneurial activity. They also argue that a culture high on masculinity (MAS) discourages entrepreneurial activity amongst women.

A study conducted by Hofstede (1983) about work-related value patterns of matched samples of industrial employees in 50 countries and three regions at two points in time (n=116,000), ranked the RSA high on MAS and IDV. Based on the findings of Hofstede (1983) and the findings of a more recent study conducted by Shinnar et al. (2012), it can be expected that Pull motivation factors, which are associated with amongst, a focus on materialistic achievement and wealth, will be the most prevalent motivating factors for Built Environment professionals. This observations is not consistent with findings by Schjoet and Shaver (2007) that Push motivation factors dominate developing economies (see Section 2.5). It can also be expected that a lesser number of women will choose self-employment.

The RSA is not only a culturally heterogeneous society; because of its colonial and apartheid history, different cultural values are hypothesised to influence the proclivity towards entrepreneurship among major ethnic groups (Urban, 2006). Figure 2.1

indicates the distribution of the TEA rate by gender in the RSA compared to other African countries who participated in a survey conducted by the Global Entrepreneurship Monitor (GEM) in 2016. The data suggests that, in general, the TEA rate by gender in the RSA is not competitive with the African average (Global Entrepreneurship Monitor, 2017).

Figure 2. 1 - Distribution of TEA Rate by Gender in the RSA



Source: Global Entrepreneurship Monitor (2017)

According to a study conducted by Urban (2006) aimed at determining the influence of culture on Entrepreneurial Intention in the RSA (n=150), it appears that cultural values do not have a strong and clear relationship with Entrepreneurial Intention. Consequently, it can be expected that despite the cultural diversity in the RSA, the consequent diversity of cultural values will not impact on the findings of this study. Farrington, Venter and Louw (2012) conducted a study aimed at determining the influence of demographic factors (university attended, level of study and ethnicity) on the entrepreneurial intentions of undergraduate business students in the RSA (n=447) and found that demographic variables have a significant influence on Entrepreneurial Intentions. There is therefore a need in this study to moderate for the influence of demographic variables.

2.2.2 THE INFLUENCE OF ENTREPRENEURSHIP PROGRAMMES AND ENTREPRENEURIAL AWARENESS EDUCATION ON ENTREPRENEURIAL INTENTIONS (EI)

Can entrepreneurship even be taught? This recurring and controversial question has been researched extensively by entrepreneurship scholars over the years. In this context, entrepreneurial education is defined by Bae et al. (2014) as education for entrepreneurial attitudes and skills. Many educational programmes for entrepreneurship foster a wide range of skills, including creative thinking, teamwork, risk management and financing, all of which can be taught formally or informally, in large groups settings or individually, at national or local levels (Arthur, Hisrich, & Cabrera, 2012). However, the widespread rise of entrepreneurship courses in higher education has not been accompanied by rigorous, consistent and sustainable programme evaluations (Fretschner & Weber, 2013; Meyer, 2011). Different curricular and instructional designs of the entrepreneurship courses, as well as methodological rigor, further reduce the comparability between the studies (Fretschner & Weber, 2013). It is therefore important to ensure that what is being taught is the right material and delivery method that will foster Entrepreneurial Intentions (Arthur et al., 2012).

Does entrepreneurship education have an impact on Entrepreneurial Intention? Many studies have been conducted aimed at determining if entrepreneurial education is positively associated with Entrepreneurial Intention (Bae et al. 2014). It is a generally acceptable conventional wisdom that entrepreneurship education increases Entrepreneurial Intention (Soutaris, Zerbinati, & Al-Laham, 2007). In particular, entrepreneurship education has been considered one of the key instruments to increase the entrepreneurial attitudes of both potential and nascent entrepreneurs (Linan, Rodriguez-Cohard, & Rueda-Cantuche, 2011). Soutaris et al. (2007), in a study conducted on science and engineering students from two universities (London and Grenoble, n=250) tested the effect of three programme derived benefits of entrepreneurial education: learning, inspiration and resource-utilisation. They were able to illustrate that entrepreneurship programmes are a source of trigger-events which inspire students by arousing emotions and changing mind-sets, and also that inspiration is the programme derived benefit that raises entrepreneurial attitudes and intentions.

Bae et al. (2014) meta-analysed 73 studies (n=37 285) all aimed at determining correlations (if any) between entrepreneurial education and entrepreneurial activity. They were able to establish a significant but small correlation between entrepreneurship education and Entrepreneurial Intentions. In order to develop an individual's intent to be entrepreneurial, educators can focus on awareness education and also on concrete

knowledge and skills in new venture creation (Fretschner & Weber, 2013). Solesvik (2013) conducted a study to explore the differences in entrepreneurial intentions, percieved entrepreneurial motivation and cognitive profiles between individual students (third, fourth and fifth year undergraduate engineering and economics and business administration students) who had participated in enterprise education programmes and those who had not (n=321). Their findings confirmed that students who had participated in enterprised programmes had higher Entrepreneurial Intentions (Solesvik, 2013). This study will determine through statistical analysis if there is a need to moderate for the effect of level of education on Entrepreneurial Intention.

2.2.3 PREDICTING ENTREPRENEURIAL INTENTIONS (EI) – SHAPERO AND SOKOL'S ENTREPRENEURIAL EVENT MODEL (SEE MODEL) VS. AJZEN'S THEORY OF PLANNED BEHAVIOUR (TPB)

Entrepreneurship literature often models the act of being entrepreneurial as a utility-maximising occupational choice between self-employment and paid employment (Kautonen, Gelderen, & Tornikoski, 2013). Entrepreneurship research also identifies entrepreneurial readiness, defined as an individual's cognitive attributes of capability and willingness to direct behaviour in an entrepreneurial context (Lau, Dimitrova, Shaffer, Davidkov, & Yordanova, 2012), as a key component of Entrepreneurial Intentions. For the purposes of this study, it is accepted that there is no need to moderate for entrepreneurial readiness, mainly because most of the respondents are already entrepreneurs at the time of the interviews.

Also, for the purposes of this study, the researcher adopts the universally accepted notion that a decision to be entrepreneurial is not made by accident, nor is it a reflex. The researcher accepts the determination by many entrepreneurship scholars that much of entrepreneurship is intentional, requires effort and time and is based on intentional and planned behaviours (Schjoedt & Shaver, 2007). Even in cases where a unique catalysing event, like being retrenched (Push motivation), may spur an entrepreneurial act, there are often indicators of a latent long-term desire to be self-employed (Krueger, Jr., Reilly, & Carsrud, 2000). Even though venture creation could come about as a response to a prevailing opportunity, e.g. an intriguing market niche, it still requires extensive planning.

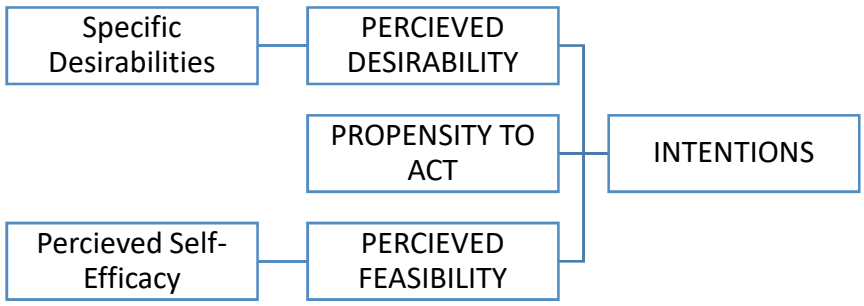
The prediction of Entrepreneurial Intention amongst Built Environment professionals is one of the key determinants of this study. Two prominent models for predicting Entrepreneurial Intentions are Shapero and Sokol's Entrepreneurial Event Model (SEE)

and Ajzen's Theory of Planned Behaviour (TPB), all of which have their limitations when used to predict intentions. These two models are discussed further in the following sub sections.

2.2.3.1 Predicting Entrepreneurial Intentions using Shapero and Sokol's Entrepreneurial Event Model (SEE Model)

One model of explaining Entrepreneurial Intentions is Shapero's model of the Entrepreneurial Event (SEE model), which is implicitly an intention model specific to the domain of entrepreneurship (Krueger Jr. et al., 2000). The SEE model was developed to understand, amongst, entrepreneurial behaviour (Lee, Wong, Foo, & Leung, 2011). According to the SEE model, the entrepreneurial event requires the potential to start a business to exist prior to the displacement (Krueger Jr. & Brazeal, 1994). According to Shapero and Sokol, Entrepreneurial Intention depends on perceptions of personal desirability, feasibility and propensity to act (Krueger Jr. et al., 2000). The model assumes that inertia guides human behaviour until something interrupts that inertia through a negative displacement (Push motivation factors e.g. job loss) or positive displacement (Pull motivation factors e.g. favourable economic climate) (Krueger Jr. & Brazeal, 1994). Figure 2.2 indicates Shapero and Sokol's Model of Entrepreneurial Event (SEE model).

Figure 2. 2 – Shapero & Sokol's Model of Entrepreneurial Event (SEE model)



Source: Krueger, Jr., Reilly, & Carsrud (2000); Schlaegel & Koenig (2013)

In the SEE model, intentions to start a business are derived from perceptions of desirability and feasibility and also from a propensity to act on opportunities (Gelderen, et al., 2008; Krueger, Jr., Reilly, & Carsrud, 2000; Linan, Rodriguez-Cohard, & Rueda-Cantuche, 2011; Schlaegel & Koenig, 2013). According to Shapero and Sokol, the choice of the resulting behaviour is greatly influenced by both the desirability and feasibility of

the intended behaviour. In this context, perceived desirability refers to the degree to which an individual feels attracted to become an entrepreneur while perceived feasibility refers to the degree of self-belief that an individual is capable of becoming a successful entrepreneur (Krueger Jr. et al., 2000; Linan. et al. , 2011; Schlaegel & Koenig, 2013).

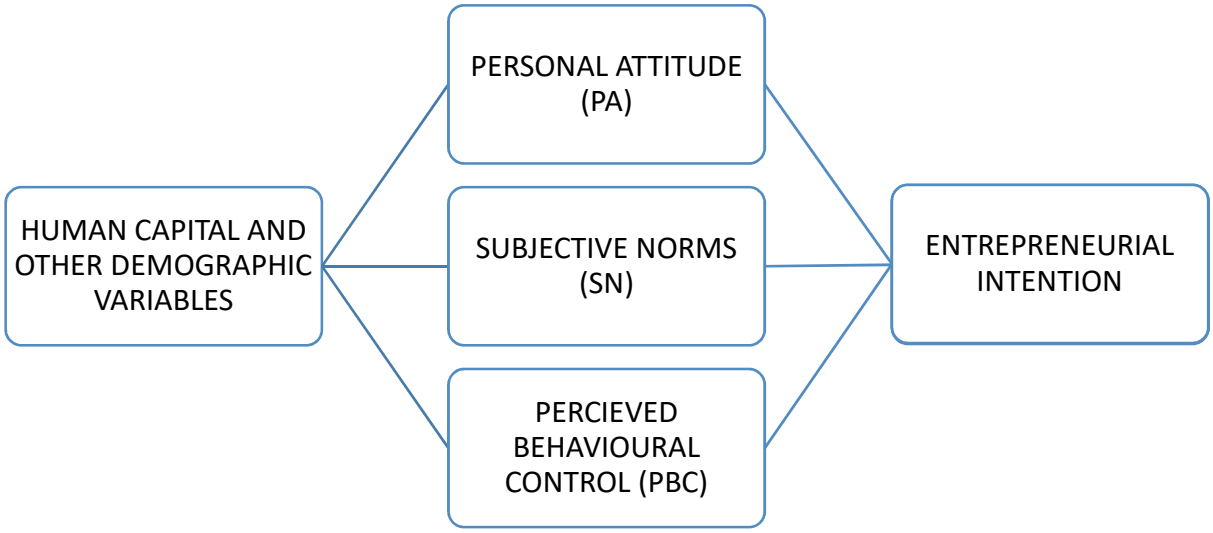
The SEE model puts a lot of emphasis on self-efficacy, which is defined as the personal ability to execute a target behaviour (Krueger Jr. & Brazeal, 1994), as an attribution of personal competence and control in a given situation. It is also linked to initiating and persisting with the behaviour under high uncertainty, to setting higher goals and reducing threat-rigidity and learned hopelessness (Krueger Jr. & Brazeal, 1994; Krueger Jr. et al., 2000). The propensity to act on opportunities i.e. the personal disposition to act on one's decisions (Krueger Jr. et al., 2000), is also key since the lack thereof increases the likelihood of the intent not being converted into an action. The lack of self-efficacy is therefore most likely to result in no behaviour. Shapero and Sokol's SEE model is not well tested in the domain of entrepreneurial research (Krueger Jr. et al., 2000) and therefore not the preferred method for predicting Entrepreneurial Intentions for the purposes of this study.

2.2.3.2 Predicting Entrepreneurial Intentions using Ajzen's Theory of Planned Behaviour (TPB)

Another prominent model for predicting Entrepreneurial Intentions is Ajzen's Theory of Planned Behaviour (TPB), which conceptualises strength of intention as an immediate antecedent of behaviour (Kautonen, Gelderen, & Tornikoski, 2013). The TPB was developed to explain how individual attitudes towards an act, the subjective norm and perceived behavioural control, are antecedents of intentions (Lee et al., 2011). It proposes that intention, a function of behavioural beliefs, is a significant predictor of subsequent behaviour, while intention itself is a function of behavioural beliefs that link certain behaviours to outcomes (Kautonen, Gelderen, & Tornikoski, 2013). Figure 2.3 indicates Ajzen's model of the Theory of Planned Behaviour.

The TPB model (see Figure 2.3) explains intentions by means of personal attitudes towards the behaviour (PA), perceived behavioural control (PBC) and subjective norms (SN) (Engle et al., 2010; Fretschner & Weber, 2013; Gelderen et al., 2008; Linan, Urbano & Guerrero, 2011; Lakovleva, Kolvereid & Stephan, 2011; Renko et al., 2012). The TPB suggests that beliefs about attitude, control and norms influence behaviour and are mediated by intentions.

Figure 2. 3 - Entrepreneurship Intention Model using Ajzen's Theory of Planned Behaviour



Source: Linan & Chen (2009)

Personal attitude (PA) refers to the individual's evaluation of the target behaviour (favourable or unfavourable), subjective norms (SN) capture the opinions of social reference groups (such as family and friends) regarding whether or not the individual should engage in the behaviour and perceived behavioural controls (PBC) denote the perceived level of ease or difficulty of performing the behaviour (Kautonen, Gelderen & Fink, 2013; Kautonen, Gelderen & Tornikoski, 2013; Lakovleva et al., 2011; Linan, Rodriguez-Cohard & Rueda-Cantuche, 2011). According to Kautonen, Gelderen and Fink (2013), intention fully mediates the effects of attitude and subjective norms on behaviour. PBC has a double role: where the individual has a high degree of control over the behaviour, intention is a sufficient predictor of the individual exerting effort and taking action to achieve the goal; however, in situations where the individual has a low degree of control over the behaviour, PBC serves as a proxy for actual behavioural control (Kautonen, Gelderen, & Fink, 2013).

Personal attitudes, subjective norms and perceived behavioural control are theorised to be determined by two elements, namely; beliefs relevant to the behaviour about outcomes and evaluation of these outcomes (Gelderen, et al., 2008). Beliefs related to perceived high-entrepreneurial motivation may promote individuals' attitudes towards entrepreneurship (Solesvik, 2013). Ajzen identifies three types of beliefs relevant to the behaviour, namely; behavioural beliefs, which are assumed to influence attitudes towards the behaviour; normative beliefs, which constitute the underlying determinants for subjective norms; and control beliefs, which provide the basis for the perceptions of

behavioural control (Engle, et al., 2010). These salient beliefs can be expected to vary across different populations (Gelderen, et al., 2008; Engle, et al., 2010; Solesvik, 2013), as well as in their relative importance (Engle, et al., 2010). The stronger the beliefs the individual has regarding personal and social desirability of doing something, and their belief that they have the necessary skills and ability to do what is necessary, the greater the likelihood that they will behave in a particular way (Engle, et al., 2010). The theoretical specifications of the TPB are more consistent and detailed and have been tested, advanced and criticised in many studies (Gelderen, et al., 2008).

In the context of Entrepreneurial Intention, the attitude towards the behaviour is an important element concerning the perception of desirability that affects Entrepreneurial Intentions (Linan, Urbano, & Guerrero, 2011). The more positive an individual's attitude towards engaging in entrepreneurial activity, the more supportive of entrepreneurial behaviour the individual perceives their social reference groups to be, and the more capable they feel of performing entrepreneurial activities. Consequently, their intention to engage in entrepreneurial behaviour should be stronger (Kautonen, Gelderen, & Tornikoski, 2013).

2.2.3.3 The Application of Ajzen's Theory of Planned Behaviour (TPB) in the Context of Developing Countries

Since the RSA is a developing country, it is useful to pay attention to entrepreneurial motivation in a non-western context. Although there are numerous academic journals that focus on development economics, these journals only provide limited studies on entrepreneurship, let alone entrepreneurial motivation (Eijdenberg & Masurel, 2013). A considerable number of academic studies performed in the field of entrepreneurship are based on a developed country context; hence they do not necessarily apply to the developing country context (Eijdenberg & Masurel, 2013). Lakovleva et al. (2011) used the TPB to predict Entrepreneurial Intention amongst business students in five developing countries and nine developed countries (n=2 225), with the intention to investigate whether Entrepreneurial Intention and its antecedents differ between developing and developed countries. Their findings supported the TPB in both developing and developed countries. What they found was that respondents from developing countries scored higher on the TPB and its antecedents of Entrepreneurial Intention (Lakovleva et al., 2011), and this can thus be expected to hold true for the RSA.

Engle et al. (2010) tested the ability of Ajzen's TPB to predict Entrepreneurial Intention in 12 countries representing all ten of the global regional clusters identified in the Global Leadership and Organisational Behaviour Effectiveness Research (GLOBE) project. A total of 1 748 usable questionnaires were collected from university business students in 12 countries. Their findings were supporting of the TPB and its ability to predict Entrepreneurial Intention (Engle, et al., 2010). Kautonen, Gelderen and Fink (2013) tested the robustness of the TPB in predicting Entrepreneurial Intention and subsequent behaviours (n=969). They found strong support of all hypothesised relationships and also found them to be robust across a wide range of different demographic and biographical characteristics of individuals (Kautonen, Gelderen, & Fink, 2013).

The findings from this study could be construed as confirmation of the TPB and its ability to predict Entrepreneurial Intention in developing countries, including the RSA. Malebana and Swanepoel (2015) conducted a study aimed at testing whether the TPB can be used to explain the Entrepreneurial Intention of rural university students in the RSA (n=355). Their findings confirmed the use of the TPB as a valuable model for understanding Entrepreneurial Intention in the RSA, due to the correlation between Entrepreneurial Intention and the three antecedents (Malebana & Swanepoel, 2015).

2.2.3.4 Comparing and Contrasting the Competing Models of Predicting Entrepreneurial Intentions (EI)

Ajzens TPB and Shapero and Sokol's SEE model are similar in many ways. Both models are linear and unidirectional (Carsrud & Brannback, 2011). Both contain an element conceptually associated with perceived self-efficacy i.e. perceived behavioural control in TPB and perceived feasibility in the SEE model; and TPB's other two attitude measures correspond to the SEE model's perceived desirability (Krueger Jr. et al., 2000). Both deem desirability and feasibility beliefs as core elements through which background motivational factors (such as risk-taking, goal orientation, motives, and career-stage-specific factors) effect entrepreneurship (Minola, Criaco, & Obschonka, 2016).

Krueger Jr, et al. (2000) employed a competing models approach, comparing regression analysis results of the two models (SEE model vs. TPB), with the aim of testing for statistical fit and how well the results support each component of the two models (n=97). The results offer strong statistical support for both models (Krueger Jr. et al., 2000). Schlaegel and Koenig (2013) carried out a meta-analytical test and integration of the TPB and SEE models (123 student samples, 98 studies [more than 30 countries] and n=114 007). Their findings demonstrated support for the competing theories and

indicated the role of moderating contextual boundary conditions in the development of Entrepreneurial Intentions (Schlaegel & Koenig, 2013). The TPB is also developed and well validated in social psychology (Krueger Jr. et al., 2000).

The effectiveness of the TPB has thus been verified successfully by numerous entrepreneurship scholars, across numerous areas of speciality (e.g. medical, engineering, business studies etc.), according to Engle et al. (2010). Shapero's SEE model, on the other hand, is not well tested in the domain of entrepreneurial research (Krueger Jr. et al., 2000), thus the TPB is the preferred method for predicting Entrepreneurial Intentions for the purposes of this study.

2.3 ENTREPRENEURIAL MOTIVATIONS

Many scholars have referred to Entrepreneurial Intention as the best predictor of future behaviour i.e. a propensity to act on the Entrepreneurial Intentions, and examples of such scholars are Kautonen, Gelderen and Tornikoski (2013). However, the question of how individuals with entrepreneurial intentions become entrepreneurs remains, i.e. how the intention to be an entrepreneur is translated into action? Carsund and Brannback (2011) suggest that motivation is the missing link between the intention and the action of being entrepreneurial. Estay, Durrieu and Akhter (2013) argue that there is a link between the needs associated with motivation and entrepreneurship logics of action, and that there is a causal pathway between motivation antecedents, the needs at the beginning of this attitude and the action of being entrepreneurial.

Motivation is the processes that accounts for an individual's intensity, direction and persistent effort towards attaining a goal (Robbins & Judge, 2015). Entrepreneurial motivations refer to the desire or tendency to organise, manipulate and master organisations, human beings or ideas as quickly and independently as possible (Johnson, 1990; Solesvik, 2013). Estay et al. (2013) define entrepreneurial motivation as an attitude made up of objective and subjective components. A person's perceived entrepreneurial motivation refers to their beliefs related to how attractive the idea of selecting self-employment in a specific country can be (Solesvik, 2013).

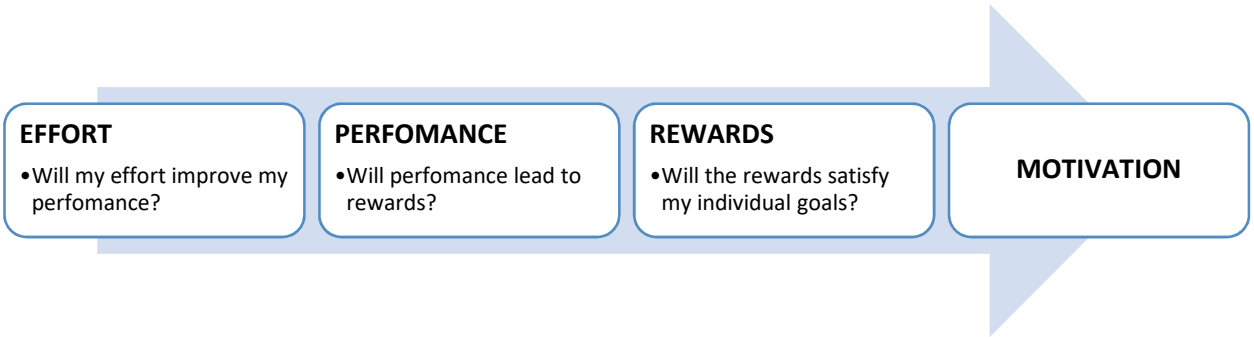
Traditionally, motivation has been studied to answer three key questions, namely; what activates a person (activation), what makes an individual choose one behaviour over another (selection-direction) and why different people respond differently to the same motivational stimuli (preparedness of response) (Carsrud & Brannback, 2011). The type of individual entrepreneurial motivation varies from person to person. Carsrud and

Brannback (2011) suggest that entrepreneurial motivation is specific to a country and its citizens.

In a study carried out by Carter, Gartner, Shaver and Gatewood (2003) aimed at exploring the reasons that nascent entrepreneurs in the USA (those registered in the national database of individuals who were in the process of starting companies) gave for choosing self-employment; self-realization, financial success, innovation and independence were identified as the main reasons for choosing self-employment. Hessels and Gelderen (2008) also identify three types of motives for choosing self-employment, namely; the independence motive, the increased wealth motive and the necessity motive. Hardly anybody starts a business in order to achieve innovation, job creation and economic growth (Hessels & Gelderen, 2008). The level of attractiveness of self-employment may also be related to the the economic benefits accrued from the entrepreneurial activity, and the possibility of achieving independence, reaching specific goals and becoming wealthy, agrees Solesvik (2013). Past research has determined significant differences in the pattern of reported motivation between men and women, with women significantly more likely to report family and personal concerns, and less likely to report financial motivations (Dawson & Henley, 2012).

Vroom's Expectancy Theory is an appropriate framework to use when examining motivations for self-employment (Edelman, Brush, Manolova, & Greene, 2010). Simply put, Expectancy Theory (see Figure 2.4) states that the actions of an individual are driven by expected consequences (Renko, Kroeck, & Bullough, 2012). It explains motivation on the basis of three relationships, namely; expectancy, valence and instrumentality (Edelman, Brush, Manolova, & Greene, 2010). Deciding amongst behavioural options, an individual is most likely to choose an option with the strongest motivational force, i.e. strongest belief that effort will result in the attainment of goals (Renko et al., 2012).

Figure 2. 4 - Vroom's Expectancy Theory Model



Source: Edelman, Brush, Manolova, & Greene (2010), Renko, Kroeck, & Bullough (2012)

In application, Expectancy Theory suggests three relationships, namely: people believe that exerting a certain amount of effort can yield results (the relationship between effort and performance); that performance at a particular level will result in a specific desired outcome (instrumentality relationship); and that the reward for the desired outcome must be attractive for people to be motivated to attain it (valence-personal goal relationship) (Edelman et al., 2010; Renko et al., 2012). The Theory of Planned Behaviour, which is the preferred method for predicting Entrepreneurial Intention for the purposes of this study, is closely related to Expectancy Theory (Renko et al., 2012).

According to Carsrud and Brannback (2011), motivational theories can be divided into two broad categories, namely: incentive theories (motivational Pull) and drive theories (motivational Push). Incentive theories and drive theories are credited by many entrepreneurship researchers as the main reasons why individuals choose self-employment. Incentive motivational theories suggest that there is an end point in some form of a goal that pulls the person towards it and these theories are are dominated by motivational Pull factors (Carsrud & Brannback, 2011). They (incentive theories) suggest that people are motivated to do things because of external rewards e.g. flexibility, income and prestige (Fayolle, Linan, & Moriano, 2014). Drive motivational theories suggest that there is an internal stimulus and the individual seeks to reduce the resulting tension and these are dominated by motivational Push factors (Carsrud & Brannback, 2011). They (drive theories) suggest that there is an internal need (e.g. achievement or autonomy) that has the power of motivating the individual to start a new venture in order to reduce the resulting tension (Fayolle, Linan, & Moriano, 2014).

In the context of motivation, the focus of this study is on motivating factors for converting the intention into the actual action of starting a business, with emphasis on Push and Pull motivation factors, which are discussed further in the following sub-sections.

2.4 PULL ENTREPRENEURSHIP (OPPORTUNISTIC ENTREPRENEURS) – JOB SATISFACTION AND AUTONOMY AS KEY PULL MOTIVATION FACTORS

2.4.1 JOB SATISFACTION AS A PRIMARY MOTIVATION FACTOR FOR CHOOSING SELF-EMPLOYMENT

Pull motivation factors are associated with opportunity entrepreneurs and are the **second focus area for this study**. Pull entrepreneurship theory argues that individuals with Entrepreneurial Intentions are pulled or attracted into self-employment if they identify

the existence of attractive and potentially profitable business opportunities (Dalborg & Wincent, 2015). Pull motivation factors are those which draw people into starting a business (Kirkwood, 2009). If motivations are largely external and opportunity related, then self-employment can be viewed positively, as it may provide opportunities for quality of life improvement and for the exploration of creative entrepreneurial opportunities (Dawson & Henley, 2012). This is consistent with incentive theories, which are dominated by Pull motivation factors, or opportunity factors (Carsrud & Brannback, 2011).

Monitory motivations are usually classified as Pull motivating factors (Kirkwood, 2009). Pull factors motivate by seeking to capitalise on an opportunity leading to an achievement or reward. Pull factors include the desire for autonomy, self-fulfilment and seeing an opportunity (Dalborg & Wincent, 2015), income and wealth, challenge, recognition and status (Hessels & Gelderen, 2008). In essence, the stronger the Pull motive, the more likely for the entrepreneurial intention to be converted into action. Research conducted by Guerra and Patuelli (2016) aimed at investigating why people choose self-employment in Switzerland suggests that pecuniary and non-pecuniary job satisfaction significantly affect transitions to entrepreneurship. Guerra and Patuelli (2016) showed that job satisfaction significantly affects transition probabilities towards self-employment, mainly due to low levels of pecuniary satisfaction.

A non-pecuniary aspect that is often advocated as a major driving force in self-employment is the one associated with job (dis-)satisfaction (Guerra & Patuelli, 2016). Job satisfaction can be defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. Numerous entrepreneurship researchers discuss Pull motivating factors under the umbrella of job satisfaction brought about by being self-employed (Carsrud & Brannback, 2011; Dalborg & Wincent, 2015; Schjoedt & Shaver, 2007; Lange, 2012) and a large number of studies support the notion that the self-employed enjoy higher levels of job-satisfaction compared with salaried employees (Lange, 2012). There is substantial literature that links the choice of self-employment with positive emotional outcomes, such as passion, excitement, happiness, flow and satisfaction (Patzelt & Sheperd, 2011). Using job-satisfaction as a measure of the benefits of self- employment versus working for an employer, Lange (2012), in a study conducted in 25 European countries (n=11, 157), shows that the self-employed enjoyed higher levels of job satisfaction than salaried employees.

2.4.2 AUTONOMY AS A PRIMARY MOTIVATION FACTOR FOR CHOOSING SELF-EMPLOYMENT

Past research has shown that the self-employed are more satisfied with their work, in part, due to the autonomy they experience by being self-employed (Lange, 2012; Schjoedt & Shaver, 2007) . Autonomy is identified by Croson and Minniti (2012); Dalborg and Wincent (2015) and Lange (2012) as the main/ultimate gain from choosing self-employment. It (autonomy) is one of the key trade-offs or benefits of self-employment. Seeking autonomy concerns actors who seek to escape from, or become removed from, the perceived constraints in their environment (Eijdenberg & Masurel, 2013), and the need for autonomy can be seen as an equivalent for the need for independence (Estay et al., 2013).

Dawson and Henley (2012), in a study aimed at re-assessing whether individuals choose self-employment for Push or Pull reasons, based on the data available in the UK quarterly labour force surveys, have found that the most common reason for choosing self-employment across genders is autonomy. Empirical evidence has shown that autonomy is valued by entrepreneurs and is considered as an argument in the decision making process when choosing self-employment (Croson & Minniti, 2012). Findings by Lange (2012) add further strength to economists' argument that net of values and personality traits, autonomy and independence are the mechanisms by which self-employment leads to higher levels of job satisfaction. Individuals do have preferences for non-monetary aspects and in the employment relationship or self-employment relationship are willing to give up some income for an improvement in the non-monetary aspects of their job, be it autonomy or otherwise (Croson & Minniti, 2012).

Decision autonomy is probably the most important role characteristic distinguishing self-employment from employment and sometimes autonomy is even used to define self-employment (Patzelt & Sheperd, 2011). Personal autonomy and flexibility to manage family commitments have been found to be important for women, particularly those who are married or who have dependent children (Dawson & Henley, 2012). Kirkwood (2009) conducted a study (n=75) focused on gender comparative studies of motivations for entrepreneurship and identified autonomy and monetary motivations as the most prevalent Pull motivation factors. More women were motivated by autonomy than men (Kirkwood, 2009).

2.5 PUSH ENTREPRENEURSHIP (NECESSITY ENTREPRENEURS) – PRE-ENTREPRENEURIAL JOB-DISSATISFACTION AS KEY PUSH MOTIVATION FACTOR

Push motivation factors are associated with necessity entrepreneurs and are the **third focus area of this study**. Push entrepreneurship theory argues that individuals with entrepreneurial intentions may be pushed towards self-employment because of negative external forces, such as lay-off and a subsequent lack of available paid employment (Dawson & Henley, 2012). Entrepreneurial motivations which relate to work are usually considered to be Push motivation factors and include, amongst, unemployment, redundancy and a lack of job or career prospects (Kirkwood, 2009). According to Push hypothesis, increased unemployment due to a negative economic climate reduces the prospects for finding paid employment, thus making self-employment attractive (Dawson & Henley, 2012). This could be expected to hold true for the RSA due to the current negative economic climate. The economy of a country where a person lives is therefore a significant factor for being pushed to become an entrepreneur (Eijdenberg & Masurel, 2013).

Push motivation factors are characterised by personal or external factors and are often associated with negative connotations (Kirkwood, 2009). If Push entrepreneurship is a reluctant activity associated with the absence of other opportunities, then self-employment can be viewed far less positively (Dawson & Henley, 2012). This is consistent with drive motivational theories which are dominated by Push factors or necessity factors (Carsrud & Brannback, 2011). In drive theories, negative Push motivation factors (e.g. being fired from a place of employment) can drive an individual into venture creation or other career choices (Schjoedt & Shaver, 2007). Push factors motivate potential entrepreneurs by seeking to alleviate an existing state of discomfort and somehow improve the status quo. Since a state of perpetual discomfort can be associated with developing economies, it is reasonable to expect Push motivation factors to dominate in developing countries like the RSA.

Since very early entrepreneurship research, one of the most frequently reported conditions accompanying the decision to become self-employed is that of dissatisfaction with the previous job (Brockhaus, 1980; Guerra & Patuelli, 2016). According to Push entrepreneurship theory, individuals with Entrepreneurial Intentions are pushed into choosing an entrepreneurial career due to, amongst, frustration with an existing job i.e. pre-entrepreneurial job dissatisfaction (Schjoedt & Shaver, 2007) and deterioration in current job-satisfaction (Dawson & Henley, 2012). In order to change the status quo, an

employee who is not happy with a current job could overcome the job dissatisfaction by becoming self-employed (Schjoedt & Shaver, 2007). In an early study conducted by Brockhaus (1980) (n=106), dissatisfaction with the actual work was found to be a major source of Push towards self-employment. This result has been replicated by studies carried out in more recent entrepreneurial research by Dawson and Henley (2012); Eijdenberg and Masurel (2013) and Guerra and Patuelli (2016).

Kirkwood (2009) conducted a study focused on gender comparative studies of motivations for entrepreneurship (n=75) and identified four key Push factors, namely, job-dissatisfaction, being helped by an employer, the changing world of work and motivations regarding children. In their findings, job dissatisfaction featured prominently in various forms ranging from particularly bad experiences within the workplace, dissatisfaction with the organisational culture and office politics, being unappreciated and being ignored (Kirkwood, 2009). Pre-entrepreneurial job dissatisfaction can also lead to increased negative emotions within the workplace. Self-employment provides the preconditions to cope with these emotions effectively (Sheperd & Patzelt, 2011), therefore, individuals dissatisfied with their jobs may be more inclined to enter self-employment (Guerra & Patuelli, 2016).

2.6 CONCLUSION

The study seeks to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment. Using previous research, the role of Entrepreneurial Intention as a precursor for choosing self-employment has been established, that is, that intent is the best predictor for future behaviour. Since the respondents are already entrepreneurs at the time of the study, Entrepreneurial Intention will be measured to confirm if intent was indeed present before choosing self-employment. Past research has demonstrated that Ajzen's Theory of Planned Behaviour (TPB) is suitable for predicting Entrepreneurial Intention. Its suitability to predict Entrepreneurial Intention has been demonstrated beyond the developed country context (Patzelt & Sheperd, 2011). This suitability will be tested in this study and possibly replicated accordingly.

The second focal point of the study is to determine the most prevalent motivating factors responsible for converting the Entrepreneurial Intention into an entrepreneurial activity within the Built Environment sector. The study focuses on Push and Pull motivation factors and seeks to determine their respective prevalence in the Built Environment

sector. Past research identifies the promise of job satisfaction as a result of autonomy as a suitable measure for determining the prevalence of Pull motivation factors. Past research also identifies pre-entrepreneurial job dissatisfaction as a suitable measure for determining the prevalence of Push motivation factors. Previous findings suggest that Push motivation factors dominate in developing economies. The findings of this study will either confirm or disprove these claims in the RSA context, particularly amongst Built Environment professionals.

3.0 CHAPTER THREE: RESEARCH QUESTIONS AND HYPOTHESES

3.1 INTRODUCTION

The study seeks to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment, with emphasis on the role of Entrepreneurial Intention and also the prevalence of Push and Pull motivation factors.

Information presented in Chapter 1.0 argues that, currently, the RSA has persistently low levels of entrepreneurial activities in comparison to other African countries who participated in the Global Entrepreneurship Monitor (GEM) surveys conducted in 2015 (Herrington & Kew, 2016) and again in 2016 (Global Entrepreneurship Monitor, 2017). It also establishes a need shed some light into how the TEA rate can be increased within the professional services sector, by focusing on Built Environment professionals. Information provided in Chapter 2.0 establishes the role of Entrepreneurial Intention as a precursor for choosing self-employment, that intent is the best predictor for future behaviour. It also establishes the perceived dominance of Push motivation factors in developing countries. The promise of job satisfaction as a result of autonomy is identified as a suitable measure for determining the prevalence of Pull motivation factors as well as Pre-entrepreneurial job dissatisfaction as a suitable measure for determining the prevalence of Push motivation factors.

In this chapter, research questions are identified for each of the focus areas of this study i.e. Entrepreneurial Intention as a precursor for choosing self-employment; and the prevalence of Push and Pull motivating factors in converting the Entrepreneurial Intention into an entrepreneurial activity within the Built Environment sector. Hypothesis and associated null-hypothesis are developed for each of these research questions.

3.2 RESEARCH QUESTIONS

The study aims to answer the following questions relative to the Built Environment sector:

- RQ_1: Is Entrepreneurial Intention a precursor for choosing self-employment in the Built Environment sector?
- RQ_2: Does the lure of job-satisfaction Pull Built Environment professionals into choosing self-employment?

- RQ_3: Does pre-entrepreneurial job dissatisfaction Push Built Environment professionals into choosing self-employment?

The literature review outlined in Chapter Two suggests that previous entrepreneurship research has demonstrated the prevalence of Push and Pull factors in choosing self-employment, in a wide range of contexts. According to Carsrud and Brannback's (2011) research on entrepreneurship, entrepreneurs are motivated by either incentive theories (motivational pull) or drive theories (motivational push) to choose self-employment. Given this, the literature review argues for the importance of entrepreneurial intent as a precursor for the act of choosing self-employment.

3.3 ENTREPRENEURIAL INTENTIONS (EI)

Shapero argues that Entrepreneurial Intention (EI) depends on perceptions of personal desirability, feasibility and propensity to act (Krueger Jr. et al., 2000), while Ajzen's Theory of Planned Behaviour conceptualises strength of intention as an immediate antecedent of behaviour (Kautonen, Gelderen & Tornikoski, 2013) and explains intentions by means of personal attitudes towards the behaviour (PA), perceived behavioural control (PBC) and subjective norms (SN) (Engle et al., 2010; Fretschner & Weber, 2013; Gelderen et al., 2008; Lakovleva et al., 2011; Linan, Urbano, & Guerrero, 2011; Renko et al., 2012).

It is argued that in the RSA; as a result of public policy aimed at stimulating economic growth through the encouragement of small business, the country has observed a large number of individuals who have found themselves in favourable positions of self-employment, without necessarily having prior Entrepreneurial Intentions. The literature review outlined in sections 2.2 & 2.3, however, argues that the decision to be entrepreneurial is not made by accident, nor is it a reflex. It requires effort and time and is based on intentional and planned behaviours (Schjoedt & Shaver, 2007).

Therefore, it is hypothesised that:

H_{01}: Entrepreneurial Intention (EI) is a precursor for choosing self-employment for Built Environment professionals

H_{11}: Entrepreneurial Intention (EI) is NOT a precursor for choosing self-employment for Built Environment professionals

3.4 PULL MOTIVATION FACTORS

Pull entrepreneurship argues that, individuals with entrepreneurial intentions are pulled or attracted into business if they identify the existence of attractive and potentially profitable business opportunities (Dalborg & Wincent, 2015). The literature review outlined in section 2.4 argues that the stronger the Pull motive, the more likely it is that the entrepreneurial intention will be converted into action. It also identifies Pull factors to include the desire for autonomy, self-fulfilment and seeing an opportunity (Dalborg & Wincent, 2015), income and wealth, challenge, recognition and status (Hessels & Gelderen, 2008). Numerous entrepreneurship researchers discuss Pull factors under the umbrella of job satisfaction (Carsrud & Brannback, 2011; Dalborg & Wincent, 2015; Lange, 2012; Schjoedt & Shaver, 2007), brought about by being self-employed.

Therefore it is hypothesised that:

H_{02}: The lure of job-satisfaction pulls Built Environment professionals into self-employment

H_{12}: The lure of job-satisfaction does not pull Built Environment professionals into self-employment

3.5 PUSH MOTIVATION FACTORS

According to Push entrepreneurship theory, individuals with entrepreneurial intentions are pushed into choosing an entrepreneurial career as a result of frustrations with their existing job i.e. pre-entrepreneurial job dissatisfaction (Schjoedt & Shaver, 2007). The literature review outlined in section 2.5 argues that deterioration in current job-satisfaction can be a major factor for choosing self-employment (Dawson & Henley, 2012) and also that, in order to change the status quo, an employee who is not happy with a current job could overcome their job dissatisfaction by becoming self-employed (Schjoedt & Shaver, 2007). Therefore, it is hypothesised that:

H_{03}: Pre-entrepreneurial job-dissatisfaction pushes Built Environment professionals' into entrepreneurship

H_{13}: Pre-entrepreneurial job dissatisfaction does not push Built Environment professionals into entrepreneurship

3.6 CONCLUSION

The research questions identified for each of the focus areas of this study (see section 3.2) are structured to answer the most pertinent of questions for each of the focus areas, in accordance with the aims and objectives of the study (see section 1.3) and also the literature review presented in section 2.0. Each of the research questions is specific to a focus area of the study. Hypothesis and associated null-hypothesis specific to each of the focus areas was developed. These hypothesis will be tested using statistical analysis and ultimately supported or not supported.

4.0 CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 INTRODUCTION

The study seeks to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment.

Previous chapters have demonstrated the persistently low levels of entrepreneurial activities in the RSA in comparison to other African countries and the need to shed some light into how the TEA rate can be increased within the professional services sector, by focusing on Built Environment professionals. The role of Entrepreneurial Intention as a precursor for choosing self-employment, the suitability of the promise of job satisfaction as a measure for determining the prevalence of Pull motivation factors as well as the suitability of Pre-entrepreneurial job dissatisfaction as a measure for determining the prevalence of Push motivation factors has also been determined. Research questions, hypothesis and associated null-hypothesis were presented.

This chapter presents the research design and methodology for answering the research questions. It provides an in-depth analysis of the population, sampling and unit of analysis. Data collection measures for each of the focus areas of the study are also discussed in length. This chapter also discusses the approach methodology to the statistical and procedure thereof, in particular validation of the data.

4.2 RESEARCH DESIGN AND METHODOLOGY

4.2.1 POPULATION AND SAMPLING METHOD

The population comprised of Built Environment professionals who were self-employed and provided professional services in the Built Environment sector in the RSA. The sample was defined as follows.

- The study focused on Built Environment Professionals registered as such in terms of any of the following Acts recognised by the Council for Built Environment Act No. 43 of 2000, namely:
  - Architectural Profession Act, 2000;
  - Project and Construction Management Professions Act, 2000;
  - Engineering Profession Act, 2000;

- Landscape Architectural Profession Act, 2000;
- Property Valuer's Profession Act, 2000; and
- Quantity Surveying Profession Act, 2000.

- The respondent must have founded a firm providing professional services in the Built Environment sector or own executive shares in such a firm.

Since the research was an explorative, deductive and quantitative study, it was possible to obtain a complete list of the population from the Consulting Engineers of South Africa (CESA) databases and probability sampling was suitable. The study targeted a total of 130 responses from the sample. A total of 250 questionnaires were distributed and feedback was received from a total of 80 respondents, at a completion rate of 82 per cent. The questionnaire was created and distributed from the Survey Monkey e-platform.

4.2.2 UNIT OF ANALYSIS

The unit of analysis refers to the 'who or what' will be analysed for the study. This study focused on determining the role of Push and Pull motivating factors in choosing self-employment for Built Environment professionals. Consequently, the unit of analysis for this study was individual Built Environment Professionals who had chosen self-employment.

4.2.3 DATA COLLECTION AND MEASURES

The research methodology hinged on the existing Pull and Push Theory of Entrepreneurship and investigated its prevalence on Total Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector. It sought to understand social behaviour at an organisational level and its influence in the decision behind choosing self-employment. The study was consistent with interpretivism research philosophy, was exploratory in nature and was based on a deductive approach. The study was a cross-sectional study, focused on providing insight at a particular point in time; in other words it was a 'snap shot' of the situation. Participation in this study was voluntary, and the participants could withdraw at any time of their choosing.

The research required the measurement of the prevalence of Push and Pull factors on the TEA in the Built Environment sector. It also required the confirmation of Ajzen's Theory of Planned Behaviour as a suitable model for predicting the Entrepreneurial

Intentions within the Built Environment sector and the measurement thereof. The study followed a quantitative approach, allowing for the collection of primary data from a large population with the aim of generalising the findings to the larger population (Malebana & Swanepoel, 2015; Tustin, Ligthelm, Martins & Van Wyk, 2005). It utilised structured and validated questionnaires designed by: Linan and Chen (2009) for measuring Entrepreneurial Intentions; Warr, Cook and Wall (1979) for measuring pre-entrepreneurial job-dissatisfaction; and Kolvereid (1996a) for measuring job-satisfaction as reasons for choosing self-employment. A quantitative approach was therefore suitable for the purposes of this study as it was undertaken to validate the relationships between variables of the exiting theory of entrepreneurship (Malebana & Swanepoel, 2015). It also allowed for the reliability of the data to be determined through statistical analysis.

The questionnaire comprised of five sections, labelled A to E, namely; Section A: Socio-demographic variables; Section B: Company variables; Section C: Measurement of Entrepreneurial Intention; Section D: Measurement of pre-entrepreneurial job dissatisfaction and Section E: Measurement of job satisfaction. The section on socio-demographics (Section A) was based on a nominal scale, namely; gender, age group, level of education, position and status in the company. The section on company variables (Section B) was also based on a nominal scale, namely; age and status of business, annual turnover and firm specialisation. These questions were used as moderating variables in the statistical analysis.

Entrepreneurial Intention (EI) was a variable of concern for the study as a whole. Entrepreneurial Intention was measured for two reasons. The first reason was to confirm Ajzen's Theory of Planned Behaviour as a suitable model for predicting Entrepreneurial Intention within the Built Environment sector. It is important to note that, in the RSA, as a result of the introduction of public policy aimed at stimulating economic growth through the encouragement of small business, the country has observed a large number of individuals who have become entrepreneurial without necessarily having prior Entrepreneurial Intention. This observation formed the second reason for measuring Entrepreneurial Intention, which was merely to confirm through statistical analysis if the respondents had Entrepreneurial Intention prior to choosing self-employment. All questions pertaining to the measurement of Entrepreneurial Intention and its antecedents were adopted from Linan and Chen (2009) with minor amendments, which were designed solely for studying the Theory of Planned Behaviour as it applied to entrepreneurship. Although it (the questionnaire) was initially tested in Spanish and Taiwanese samples, it has also been validated in both developed and developing

countries (Linan & Chen, 2009). Since the respondents were already practicing entrepreneurs at the time of this study, the questions were presented in the past tense. Respondents were instructed to provide responses from the view of when they were still employees considering self-employment.

Job satisfaction, expressed in terms of non-pecuniary aspects, was the variable of concern for Pull motivation factors. The use of single item measures for job satisfaction was considered for the purposes of this study. Current literature on job satisfaction supports the use of a single-item measure of the concept (Schjoedt & Shaver, 2007). Many scholars have found that single-item job satisfaction measures are more inclusive for overall job satisfaction than other alternatives (Schjoedt & Shaver, 2007). In general, single-item measures can be divided into two categories: (a) those measuring self-reported facts, such as years of education, age, number of previous jobs, and so on, and (b) those measuring psychological constructs, such as job satisfaction. Measuring the former with a single item is commonly accepted practice (Wanous, Reichers , & Hudy , 1997); however, the use of single-item measures for psychological constructs is typically discouraged, primarily because they are presumed to have unacceptably low reliability (Wanous et al., 1997). Consequently, the use of single item measure was not considered further.

Job satisfaction for the self-employed, compared to salaried and/or organisational dependent employees, can also be explained by reference to preference for autonomy and independence (Lange, 2012), and also to other suitable constructs, e.g. economic opportunity, challenge, authority etc. All questions pertaining to the measurement of job satisfaction and its antecedents were adopted from a questionnaire developed and tested by Kolvereid (1996a), with minor amendments. Kolvereid (1996a) proposed a measure which includes five reasons in favour of organisational employment and six reasons in favour of choosing self-employment. These factors have been tested for viability by Soutaris et al. (2007) with Cronbach alpha (α) values in excess of 0.7. The factors identified by Kolvereid were consistent with the Pull motivation factors identified in numerous research on the Pull and Push Theory of Entrepreneurship. Since the respondents were already entrepreneurs at the time of this study, questions were presented in the past tense. The respondents were instructed to provide responses based on their views when they were still employees considering self-employment.

Pre-entrepreneurial job-dissatisfaction (with previous job), expressed in terms of non-pecuniary aspects, was the variable of concern for Push motivation factors. Interest in the business area, frustration with an existing job and termination from a current job

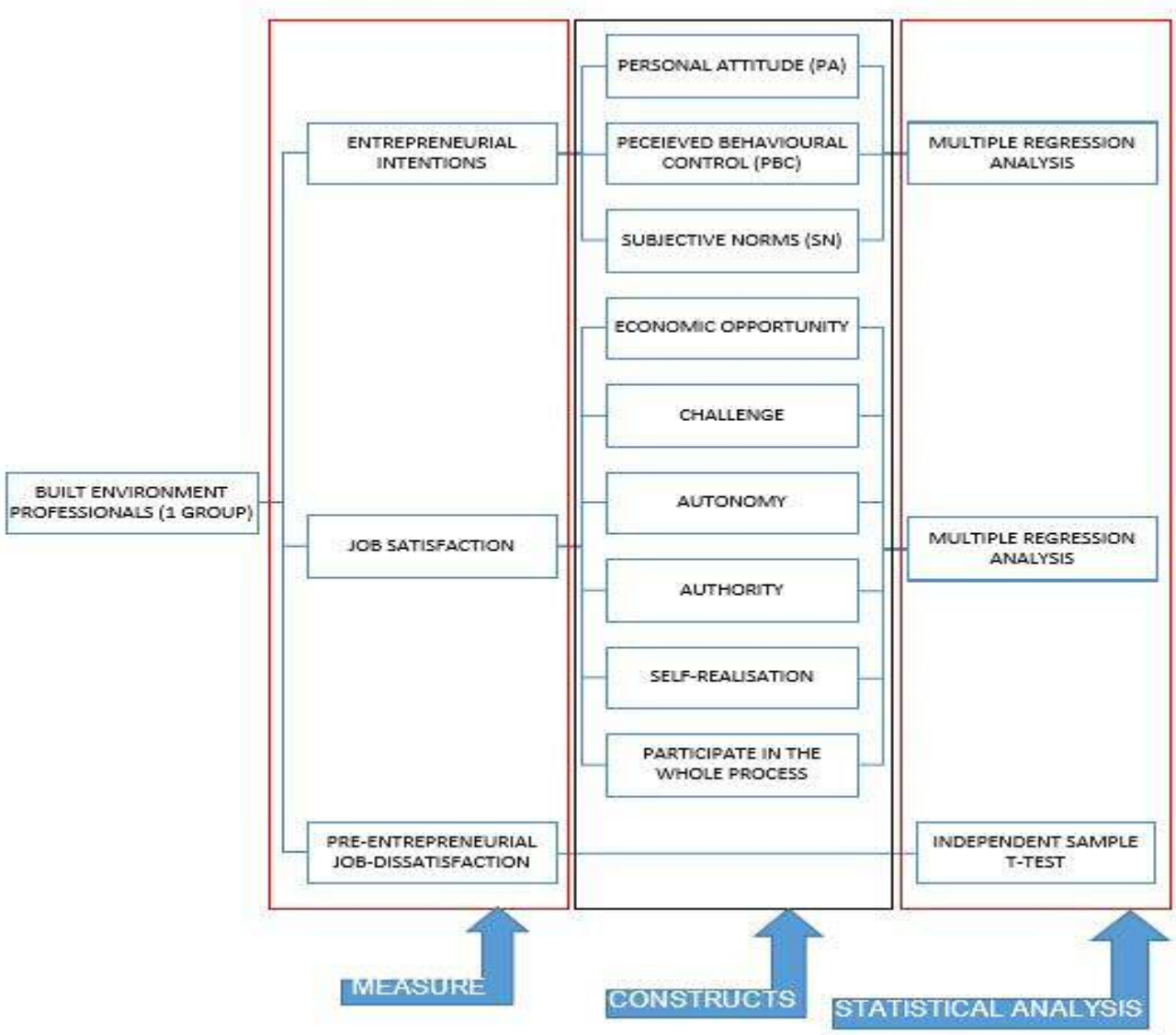
were some of the reasons cited in similar studies as reasons for starting a new venture (Schjoedt & Shaver, 2007). Pre-entrepreneurial job-dissatisfaction was measured utilising job satisfaction scales developed and validated by Warr, Cook and Wall (1979). Warr et al. define job satisfaction as the degree to which a person reports satisfaction with intrinsic and extrinsic features of the job. Total job satisfaction is the sum of all separate items, and overall job satisfaction is reported satisfaction with the job as a whole. Using these scales, negative feedback was interpreted to mean the lack of job satisfaction i.e. pre-entrepreneurial job dissatisfaction. Since the respondents were already entrepreneurs at the time of this study, questions were presented in the past tense. The respondents were instructed to provide responses from the view of when they were still employees considering self-employment.

4.3 DATA ANALYSIS

4.3.1 APPROACH METHODOLOGY TO STATISTICAL ANALYSIS

Figure 4. 1 indicates the approach methodology adopted for the statistical analysis. It indicates the item being measured i.e. the variables of concern, the constructs (if any) for each of these variables and the preferred statistical analysis technique.

Figure 4. 1 - Approach Methodology to Statistical Analysis



4.3.2 MISSING DATA ANALYSIS

4.3.2.1 Responses with Missing Data

Hair, Black, Babin and Anderson (2010) suggest that cases in which the respondents are missing 10 per cent or less of the required data may be retained and analysed further. Cases missing 15 per cent or more of the responses should be considered candidates for deletion, i.e. exclusion from further analysis. Out of the 80 responses received on the Survey Monkey e-platform, a total 15 of the respondents had missing item responses in excess of 15 per cent (i.e. 19%). These responses were deleted and not considered for further analysis.

4.3.2.2 Outliers

Outliers are defined as responses with characteristics identifiable as distinctly different from the other observations (Hair et al., 2010). Univariate outlier detection will examine if cases have observations at the outer ranges of the distribution. According to Hair et. al. (2010), for sample sizes with more than 80 respondents, the threshold value of the standardised z score is four. For this study, the sample size was over 100, thus this threshold was adopted. Two cases had standard z scores above four for a number of their responses. As a result, and in accordance with Hair et. al (2010), these cases were excluded from further analysis. Consequently, the final sample used consisted of 63 statistically valid responses.

4.3.3 DATA VALIDITY AND RELIABILITY INDICATORS

Principal Components Factor Analysis (PCA) was utilised for testing the measurement instruments for validity. Reliability of the measurement instruments was tested using the Cronbach's alpha coefficient. For exploratory research, Cronbach's alpha values above 0.7 are required for measurement instruments to retain reliability (Nunnally & Bernstein, 1994).

4.3.3.1 Principal Component Factor Analysis

Factor analysis provided the tools for analysing correlations among the items and by defining sets of items (i.e. factors) that were highly correlated (Hair et al., 2010). Table 4. 1 and Table 4.2 indicate outcomes from the exploratory factor analysis conducted using principal components as the means of extraction and Varimax as the method of orthogonal rotation. The Varimax orthogonal rotational method is a proven and successful analytic approach for obtaining rotation of factors, according to Hair et al. (2010). Orthogonal rotation was used to simplify the rows and columns of the factor matrix to facilitate interpretation.

Table 4. 1- Rotated Component Matrix[a]- Entrepreneurial Intention

Rotated Component Matrix[a]

	Component			
	1	2	3	4
EI2	0.552			
EI3	0.834			
EI4	0.907			
EI5	0.915			
EI6	0.925			
PA1		0.728		
PA2		0.790		
PA3		0.675		
PA4		0.867		
PA5		0.872		
SN1			0.786	
SN2			0.920	
SN3			0.837	
PBN4				0.876
PBN5				0.843
PBN6	0.411			0.585

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalisation.

a. Rotation converged in 5 iterations.

Table 4. 2 - Rotated Component Matrix[a]- Job Satisfaction and Pre-Entrepreneurial Job-dissatisfaction

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
PF7	0.674				
PF8	0.699				
PF9	0.869				
PF10	0.833				
PF11	0.810				
PF12	0.746				
PF15	0.668				
PF16	0.856				
EO1				0.827	
EO2				0.889	
EO3				0.780	
CH1		0.639			
CH2		0.878			
CH3		0.902			
CH4		0.767			
AT1			0.795		
AT2			0.905		
AT3			0.791		
AT4			0.743		
PWP1					0.860
PWP2					0.855

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalisation.

4.3.3.2 Reliability Test

Reliability tests for the measurement instruments were carried out using Cronbach's alpha. As suggested by Nunnally and Bernstein (1994), a cut-off value of 0.70 was adopted as proof of adequate scale reliability. The Cronbach alpha values indicated in Table 4.3 (Entrepreneurial Intention), Table 4.4 (Job Satisfaction) and Table 4.5 (Pre-Entrepreneurial Job Dissatisfaction) were determined for each of the measurement instruments.

Table 4. 3 - Cronbach Alpha Values – Entrepreneurial Intention

VARIABLE	CODE	ITEMS	CRONBACH ALPHA
PERSONAL ATTITUDE (PA)	PA1	Being an entrepreneur implies more advantages than disadvantages to me.	0.813
	PA2	A career as an entrepreneur is attractive for me.	
	PA2	If I had the opportunity and resources, I'd like to start a firm.	
	PA3	Being an entrepreneur would entail great satisfactions for me.	
	PA4	Among various options, I would rather be an entrepreneur.	
SUBJECTIVE NORM	SN1	Your close family.	0.829
	SN2	Your friends.	
	SN3	Your colleagues.	
PERCIEVED BEHAVIOURAL CONTROL	PBN1	To start a firm and keep it working would be easy for me.	0.765
	PBN2	I am prepared to start a viable firm.	
	PBN3	I can control the creation process of a new firm.	
	PBN4	I know the necessary practical details to start a firm.	
	PBN5	I know how to develop an entrepreneurial project.	
	PBN6	If I tried to start a firm, I would have a high probability of succeeding.	
ENTREPRENEURIAL INTENTION	EI1	I am ready to do anything to be an entrepreneur.	0.886
	EI2	My professional goal is to become an entrepreneur.	
	EI3	I will make every effort to start and run my own firm.	
	EI4	I am determined to create a firm in the future.	
	EI5	I have very seriously thought of starting a firm.	
	EI6	I have the firm intention to start a firm someday.	

Source: Linan & Chen (2009)

Table 4. 4 - Cronbach Alpha Values – Job Satisfaction

VARIABLE	CODE	ITEMS	CRONBACH ALPHA (α)
ECONOMIC OPPORTUNITY	EO1	Economic Opportunity.	0.829
	EO2	To receive compensation based on merit.	
	EO3	To keep a large proportion of the results/rewards.	
CHALLENGE	CH1	To have a challenging job.	0.837
	CH2	To have an exciting job.	
	CH3	To have an interesting job.	
	CH4	To have a motivating job.	
AUTONOMY	AT1	Freedom.	0.826
	AT2	Independence.	
	AT3	To be your own boss.	
	AT4	Be able to choose your own work tasks.	
AUTHORITY	ATH1	I have power to make decisions.	0.725
	ATH2	Have authority.	
SELF-REALISATION	SR1	Self-realisation.	0.895
	SR2	Realise one's dreams.	
	SR3	To create something.	
	SR4	To take advantage of your creative needs.	
PARTICIPATE IN THE WHOLE PROCESS	PWP1	To participate in the whole process.	0.826
	PWP2	To follow work tasks from A-Z.	

Source: Kolvereid (1996a)

Table 4. 5 - Cronbach Alpha Values – Pre-Entrepreneurial Job dissatisfaction

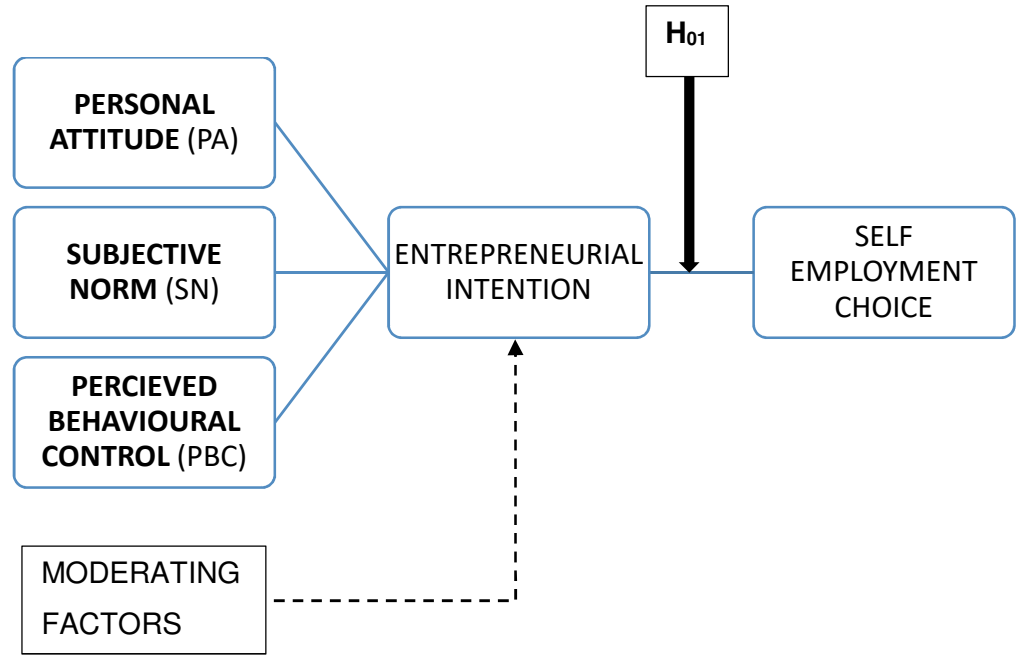
VARIABLE	CODE	ITEMS	CRONBACH ALPHA
PRE-ENTREPRENEURIAL JOB DISSATISFACTION	PF1	The physical work conditions.	0.911
	PF2	The freedom to choose your own method of working.	
	PF3	Your fellow workers.	
	PF4	The recognition you received for good work.	
	PF5	Your immediate boss.	
	PF6	The amount of responsibility you were given.	
	PF7	Your rate of pay.	
	PF8	Your opportunity to use your abilities.	
	PF9	Industrial relations between management and workers in your firm.	
	PF10	Your chance of promotion.	
	PF11	The way your firm was managed.	
	PF12	The attention paid to suggestions you made.	
	PF13	Your hours of work.	
	PF14	The amount of variety in your job.	
	PF15	Your job security.	
	PF16	…Now, taking everything into consideration, how did you feel about your job as a whole?	

Source: Warr et al. (1979)

4.3.4 ENTREPRENEURIAL INTENTIONS

The Theory of Planned Behaviour (TPB) model (see section 2.2) explained intentions by means of personal attitudes towards the behaviour, perceived behavioural control and subjective norms (Engle, et al., 2010; Fretschner & Weber, 2013; Gelderen, et al., 2008; Lakovleva et al., 2011; Linan, Urbano & Guerrero, 2011; Renko et al., 2012). According to the TPB, beliefs about attitude, control and norms influenced behaviour and were mediated by intentions. Figure 4.1 indicates the model based on Ajzen's TBP that was used in the statistical analysis for predicting Entrepreneurial Intentions. The model is adapted from Linan & Chen (2009).

Figure 4. 1 – Statistical Model for Predicting Entrepreneurship Intention using Ajzen's Theory of Planned Behaviour



Source: Linan & Chen (2009)

The data was analysed on the IBM SPSS Statistics 24 platform using descriptive statistics and hierarchical multiple regression analysis. Descriptive statistics were used for determining the frequencies of the sample. The relationship between the different independent variables of Entrepreneurial Intentions, i.e. the personal attitude, subjective norms and perceived behavioural control, and the dependent variable, entrepreneurial intention was tested using hierarchical multiple regression analysis.

4.3.4.1 Dependent variables:

As indicated in Figure 4.1, entrepreneurial intention was the dependent variable in the Entrepreneurship Intention Model using Ajzen's Theory of Planned Behaviour in accordance with Linan and Chen (2009). The questionnaire by Linan and Chen (2009) presented six statements relating to entrepreneurial intention (see section C of the questionnaire & see Table 4.3). Each statement was presented on the basis of a seven point Likert scale (1 = strongly disagree, 7 = strongly agree). Respondents were instructed to provide responses from the views that they had had when they were still employees considering self-employment.

4.3.4.2 Independent Variables

As indicated in Figure 4.2, personal attitude, subjective norms and perceived behavioural control were the independent variables in the Entrepreneurship Intention Model using Ajzen's Theory of Planned Behaviour.

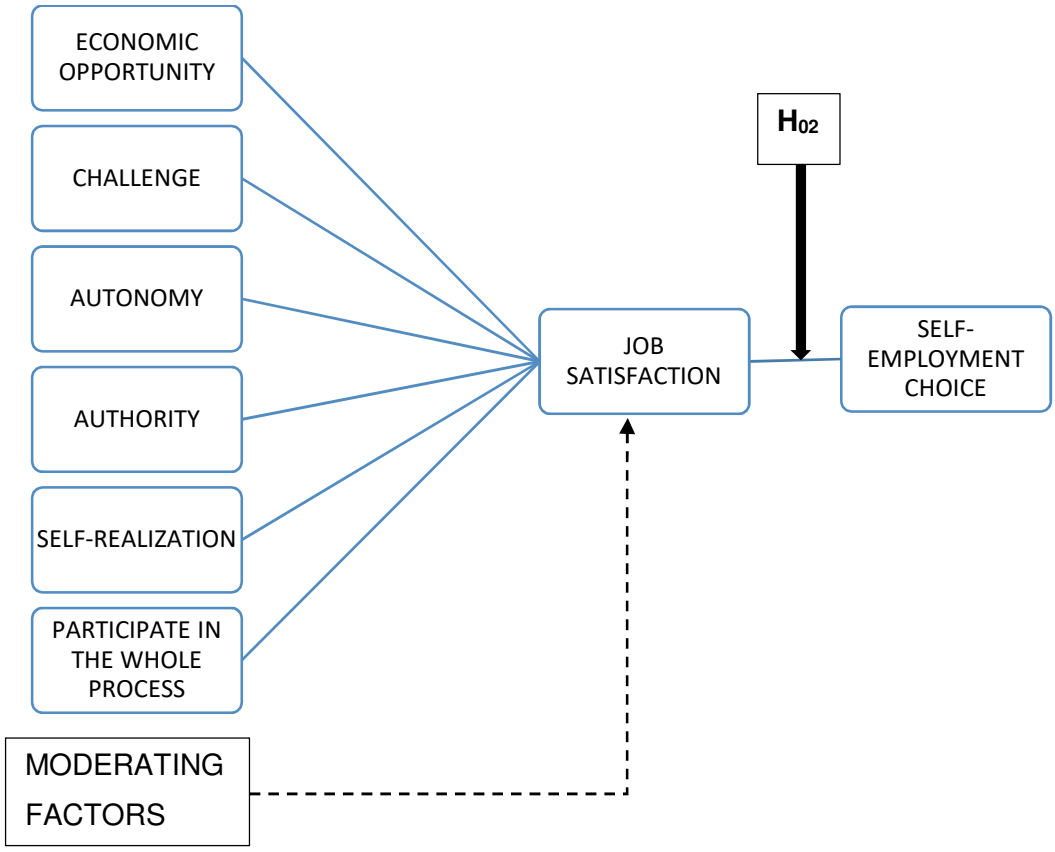
- Personal Attitude (**PA**): The questionnaire by Linan and Chen (2009) presented five statements relating to the personal attitudes of the respondents regarding choosing self-employment (see section C of the questionnaire and see Table 4.3).
- Subjective Norms (**SN**): The questionnaire by Linan and Chen (2009) presented three statements aimed at determining the reaction closest to that of the respondents regarding their intention to start their own firms (see section C of the questionnaire and see Table 4.3).
- Perceived Behavioural Control (**PBC**): The questionnaire by Linan and Chen (2009) presented six statements aimed at determining the respondents' entrepreneurial capacity intention (see section C of the questionnaire and see Table 4.3).

For each of the three independent variables, each statement was presented on the basis of a seven point Likert scale, where 1 = strongly disagree and 7 = strongly agree. Respondents were instructed to respond as if they were still employed and considering self-employment.

4.3.5 JOB SATISFACTION

Figure 4.2 indicates the model used in the statistical analysis for measuring Job-satisfaction as a reason for choosing self-employment in terms of the factors identified by Kolvereid (1996a). The model is adapted from Kolvereid (1996a).

Figure 4. 2 - Statistical Model for Measuring Job-satisfaction as a Reason for Choosing Self-Employment in Terms of Factors Identified by Kolvereid (1996a)



Source: Kolvereid (1996a)

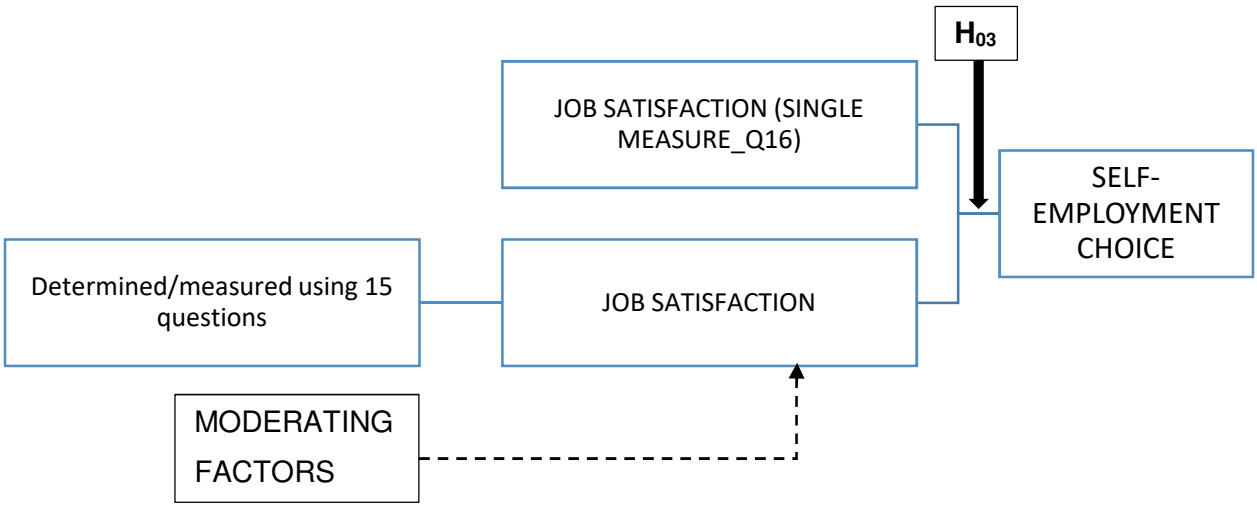
The questionnaire by Kolvereid (1996a) used a total of six constructs as a measure for determining job satisfaction (see section E of the questionnaire and Table 4.4). Each construct consisted of between two and four statements. The respondents were required to indicate on a seven point Likert scale (1 = Strongly disagree, 7 = Strongly agree) the importance of each of these factors that were considered when they chose their new career paths (see Table 4.4). The respondents were instructed to provide responses from a view of when they were still employees considering self-employment.

4.3.6 PRE-ENTREPRENEURIAL JOB-DISSATISFACTION

Figure 4.3 indicates the statistical model used for measuring pre-entrepreneurial job-dissatisfaction as a reason for choosing self-employment, in terms of the scales developed by Warr et al. (1979). The model is adapted from Warr, Cook, & Wall (1979). The scales were developed to measure total job satisfaction, expressed as a sum of all

the separate items. The questionnaire utilised 15 constructs to measure job-satisfaction (see section D of the questionnaire and Table 4.5). Respondents were required to indicate how satisfied or dissatisfied they were with these constructs at their previous place of employment using a seven point Likert scale (1 = extremely dissatisfied, 7 = extremely satisfied). The questionnaire also consisted of a single measure item which, according to Warr et al. (1979), was not to be lumped in with the other questions when doing the statistical analysis.

Figure 4. 3 - Statistical Model for Measuring Pre-entrepreneurial Job-dissatisfaction as a Reason for Choosing Self-Employment in Terms of Factors Identified by Warr et al. (1979)



Source: Warr, Cook, & Wall (1979)

Since the respondents were already entrepreneurs at the time of the study, these questions were asked in the past tense, representing a time in the past when the respondents were still employed and contemplating choosing self-employment. The respondents were instructed to provide responses in accordance with their viewpoints at the time when they were still employees considering self-employment. Using these scales by Warr et al. (1979), negative feedback was interpreted to represent the lack of job satisfaction i.e. pre-entrepreneurial job dissatisfaction.

4.4 CONCLUSION

The study required the measurement of the prevalence of Push motivation factors in the form of pre-entrepreneurial job-dissatisfaction and Pull motivation factors in the form of job-satisfaction impacting Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector. It also required the confirmation of Ajzen's Theory of Planned Behaviour (TPB) as a suitable model for predicting Entrepreneurial Intentions within the Built Environment sector and its measurement thereof.

Data was collected using structured and validated questionnaires designed by: Linan and Chen (2009) for measuring entrepreneurial intention; Warr et al. (1979) for measuring pre-entrepreneurial job-dissatisfaction; and Kolvereid (1996a) for measuring job-satisfaction as a reason for choosing self-employment. The questionnaire was created and distributed from the Survey Monkey e-platform. This measuring instrument was tested for validity using Principal Components Factor Analysis (PCA) and for reliability using the Cronbach's alpha coefficient.

Out of the 250 questionnaires that were distributed, the response rate was just over 32 per cent, of which the completion rate was 82 per cent. This could be attributed to the trend where many companies offering professional services within the Built Environment sector were not in fact started by Built Environment professionals registered as such in terms of any of the Acts recognised by the Council for Built Environment Act No. 43 of 2000 (see section 4.2.1). The number of eligible respondents thus decreased significantly as a result, since the requirement for the target respondents was entrepreneurial activity in the form of either being a founding member, or ownership of executive shares within such firms.

Figure 4.2, Figure 4.3 and Figure 4.4 presented the statistical models used for measuring the three variables of interest presented herewith. The methodology adopted for the statistical analysis (see Figure 4.1) was sub-divided broadly into two categories. The prediction of Entrepreneurial Intention using the questionnaire developed by Linan and Chen (2009) and the measurement of job-satisfaction using the questionnaire developed by Kolvereid (1996a) both involved a single dependent variable (Entrepreneurial Intentions & job satisfaction, respectively), with multiple independent variables (i.e. the constructs), which made it suitable for hierarchical multiple regression statistical analysis. The measurement of pre-entrepreneurial job-dissatisfaction, on the other hand, required a simple comparison of statistical means, which was determinable through an independent t-test.

5.0 CHAPTER FIVE: RESULTS FROM STATISTICAL ANALYSIS

5.1 INTRODUCTION

The study sought to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment. Previous chapters have demonstrated the persistently low levels of entrepreneurial activities in the RSA in comparison to other African countries and the need to shed some light into how the TEA rate can be increased within the professional services sector, by focusing on Built Environment professionals.

The role of Entrepreneurial Intention as a precursor for choosing self-employment, the suitability of the promise of job satisfaction as a measure for determining the prevalence of Pull motivation factors as well as the suitability of Pre-entrepreneurial job dissatisfaction as a measure for determining the prevalence of Push motivation factors has also been determined. Research questions were identified for each of the focus areas of this study and hypothesis and associated null-hypothesis specific to each of the focus areas developed accordingly. Data was collected using structured and validated questionnaires designed by: Linan and Chen (2009) for measuring entrepreneurial intention; Warr et al. (1979) for measuring pre-entrepreneurial job-dissatisfaction; and Kolvereid (1996a) for measuring job-satisfaction as a reason for choosing self-employment. The questionnaire was created and distributed from the Survey Monkey e-platform.

In this chapter, results from the statistical analysis aimed at answering the three research questions identified for each of the focus areas of this study and hypothesis and associated null-hypothesis specific to each of the focus areas developed accordingly (see section 3.0), are presented.

5.2 RESPONDENT PROFILE

Figure 5.1 below indicates the gender distribution profile of the respondents. Out of the 63 usable responses, 90.5 per cent were from males and 9.5 per cent were from females.

Figure 5. 1 – Respondents gender profile

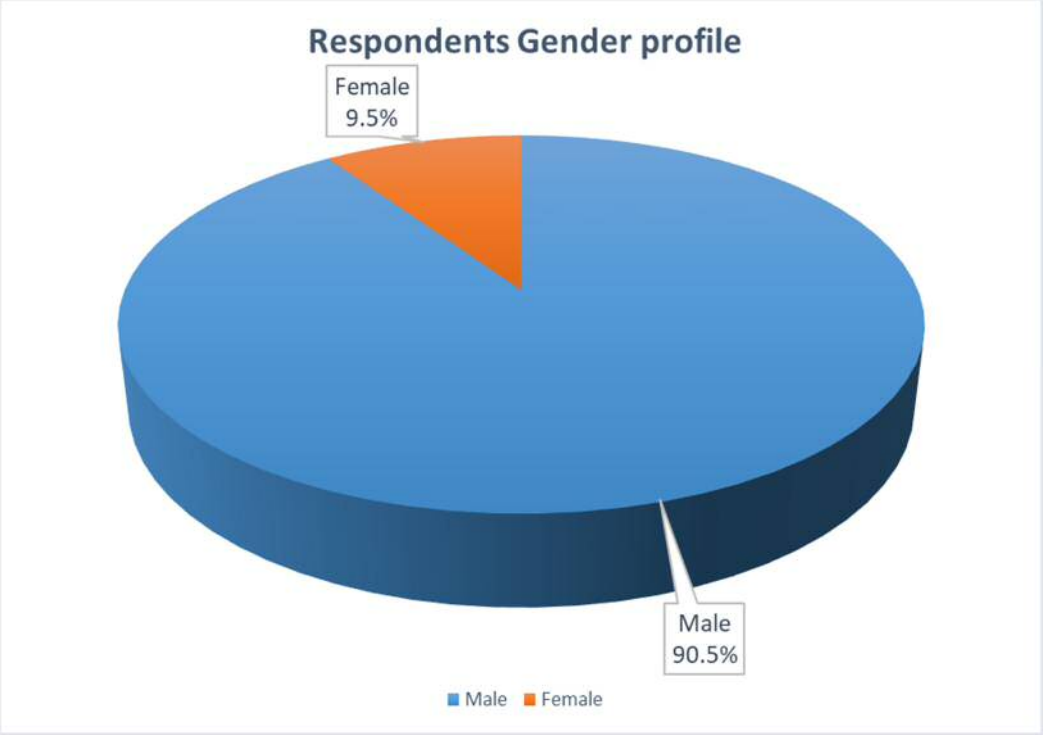


Figure 5.2 indicates the profile of the age distribution of the respondents. Out of the 63 usable questionnaires, the majority of the respondents (49.2%) were above the age of 50 years; 30.2 per cent were between the age of 40 years and 50 years and 20.6 per cent below the age of 40 years.

Figure 5. 2 – Respondents age distribution profile

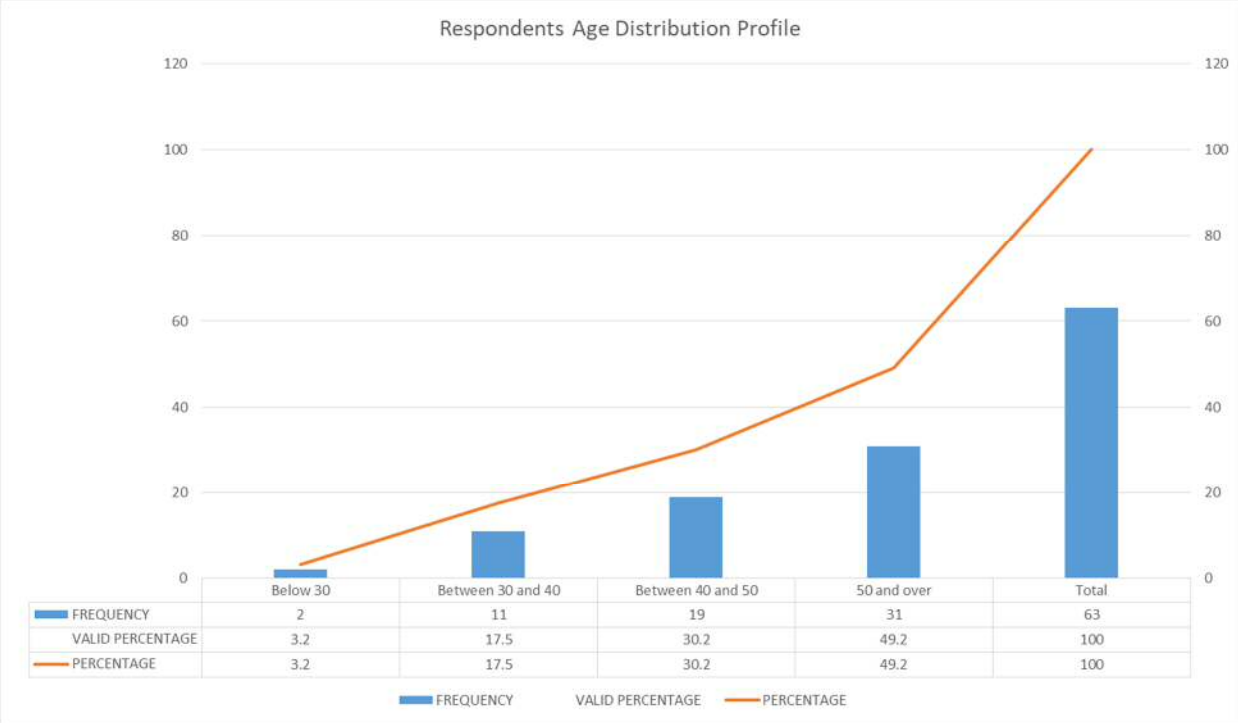


Figure 5.3 indicates the profile of the level of education of the respondents. Out of the 63 usable questionnaires, the majority of the respondents (71.4%) held post graduate degrees in Built Environment sciences; 25.4 per cent held undergraduate degrees and only 3.2 per cent held other forms of qualifications within the Built Environment sector.

Figure 5. 3 - Level of Education Profile

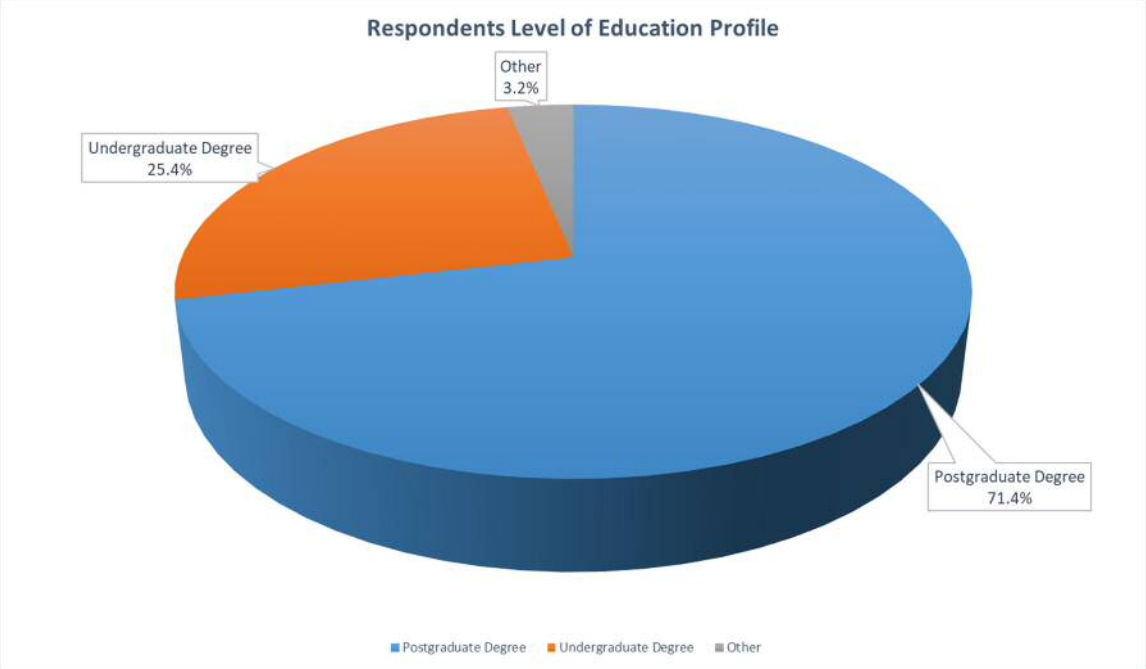


Table 5.1 indicates the profile of the positions held by the respondents within the different organisations. Out of the 63 usable questionnaires, the majority of the respondents (82.5%) held positions of either Owners, Chief Executive Officers (CEOs) or Managing Directors (MDs), 12.5 per cent held varying senior managerial positions and only 4.8 per cent held junior positions.

Table 5. 1 - Respondents' current position profile

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Owner/CEO/MD	52	82.5	82.5	82.5
	Senior Manager	8	12.7	12.7	95.2
	Other	3	4.8	4.8	100.0
	Total	63	100.0	100.0	

Table 5.2 indicates the founding member profile of the respondents. Out of the 63 usable questionnaires, the majority of the respondents (82.5%) were founding members of their organisations and only 17.5 per cent were not founding members.

Table 5. 2 – Respondent founding member profile

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Founding Member	52	82.5	82.5	82.5
	Other	11	17.5	17.5	100.0
	Total	63	100.0	100.0	

Table 5.3 below indicates the executive shareholder profile of the respondents. Out of the 63 usable questionnaires, the majority of the respondents (96.8%) were executive shareholders and only 3.2 per cent of them were not.

Table 5. 3 - Shareholder Status

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Shareholder	61	96.8	96.8	96.8
	Other	2	3.2	3.2	100.0
	Total	63	100.0	100.0	

Figure 5.4 indicates the Professional Engineering registration (Pr. Eng.) profile of the respondents. Out of the 63 usable questionnaires, the majority of the respondents (79.4%) were Professional Engineers registered with the Engineering Council of South Africa (ECSA). A total of 20.6 per cent held other professional registration statuses within the Built Environment sector.

Figure 5. 4 - Respondents' Profile - Engineering Professionals (Incl. Engineers and Project Management Professionals)

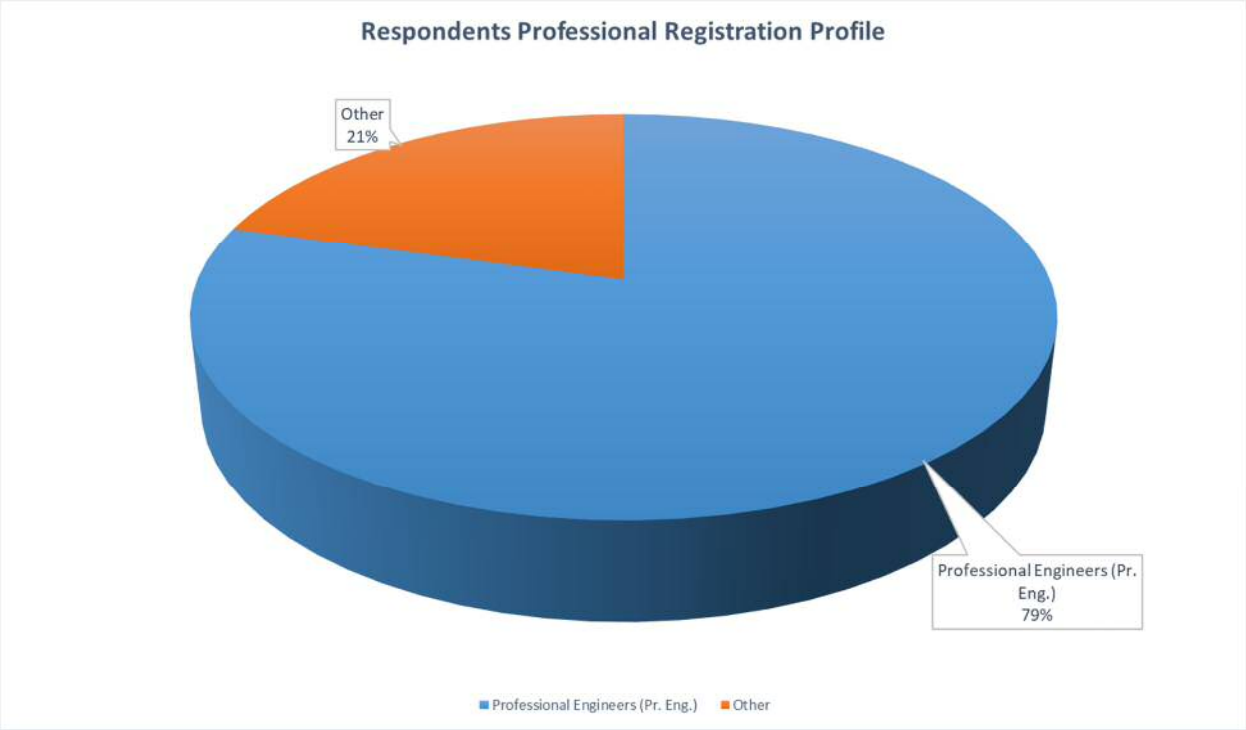


Table 5.4 below indicates the Professional Architect registration profile of the respondents. Out of the 63 usable questionnaires, only 7.9 per cent of the respondents were Professional Architects. A total of 92.1 per cent of the respondents held other professional registration statuses within the Built Environment sector.

Table 5. 4 - Respondents' Profile - Professional Architects (Incl. Landscape Architects and Property Valuers)

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Architects	5	7.9	100.0	100.0
	Other	58	92.1		
Total		63	100.0		

Table 5.5 below indicates the Professional Quantity Surveyor registration status of the respondents. Out of the 63 usable questionnaires, only 12.7 per cent of the respondents were Professional Quantity Surveyors. A total of 87.3 per cent held other professional registration statuses within the Built Environment sector.

Table 5. 5 - Respondents' Profile - Professional Quantity Surveyors

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Quantity Surveyors	8	12.7	100.0	100.0
Missing	Other	55	87.3		
Total		63	100.0		

5.3 RESPONDENTS' ORGANISATION PROFILES

Table 5.6 indicates the CESA membership profile of the respondents' organisations. Out of the 63 usable questionnaires, the majority of the organisations (71.4%) were registered members of CESA. A total of 28.6 per cent did not hold valid CESA membership.

Table 5. 6 - Respondents' Organisations' CESA Membership Profile

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Yes	45	71.4	71.4	71.4
	No	18	28.6	28.6	100.0
	Total	63	100.0	100.0	

Figure 5.5 below indicates the profile of the respondents' organisations' annual turnover. Out of the 63 usable questionnaires, 52.4 per cent of the organisations were classified as small firms, 36.5 per cent were classified as medium sized firms and only 11.1 per cent were classified as large firms.

Figure 5. 5 - Respondents' Organisations' Annual Turnover Profile

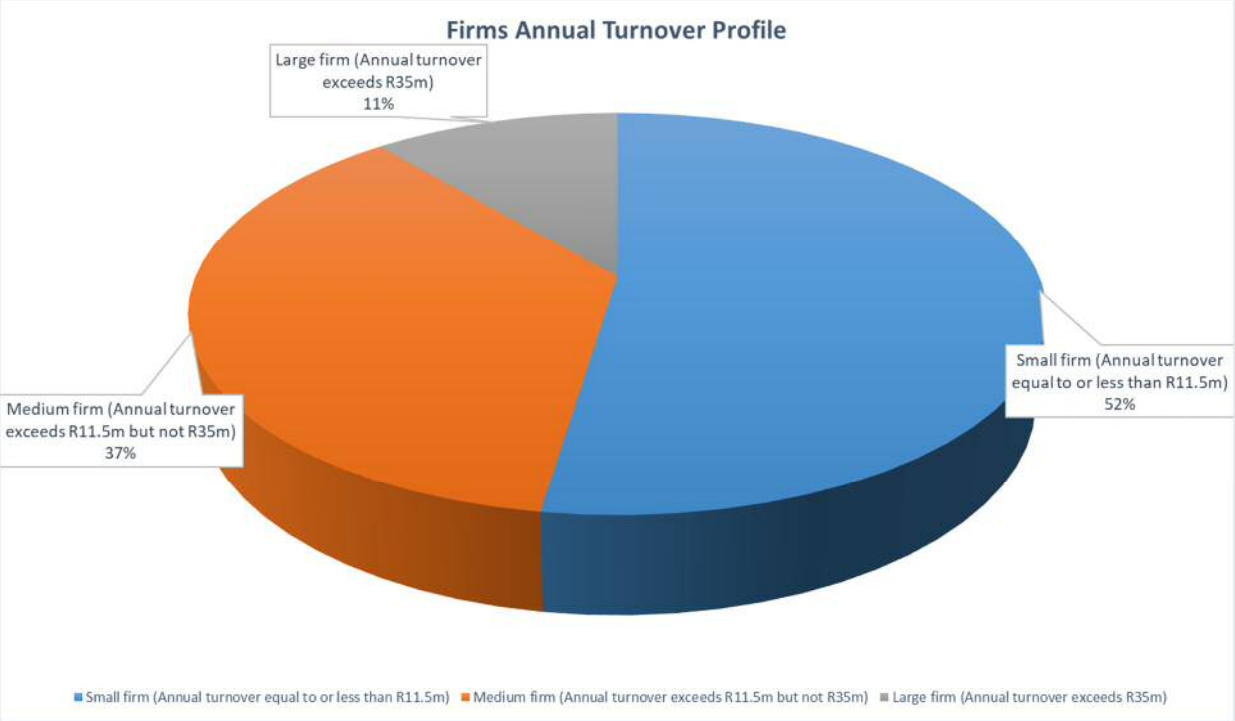


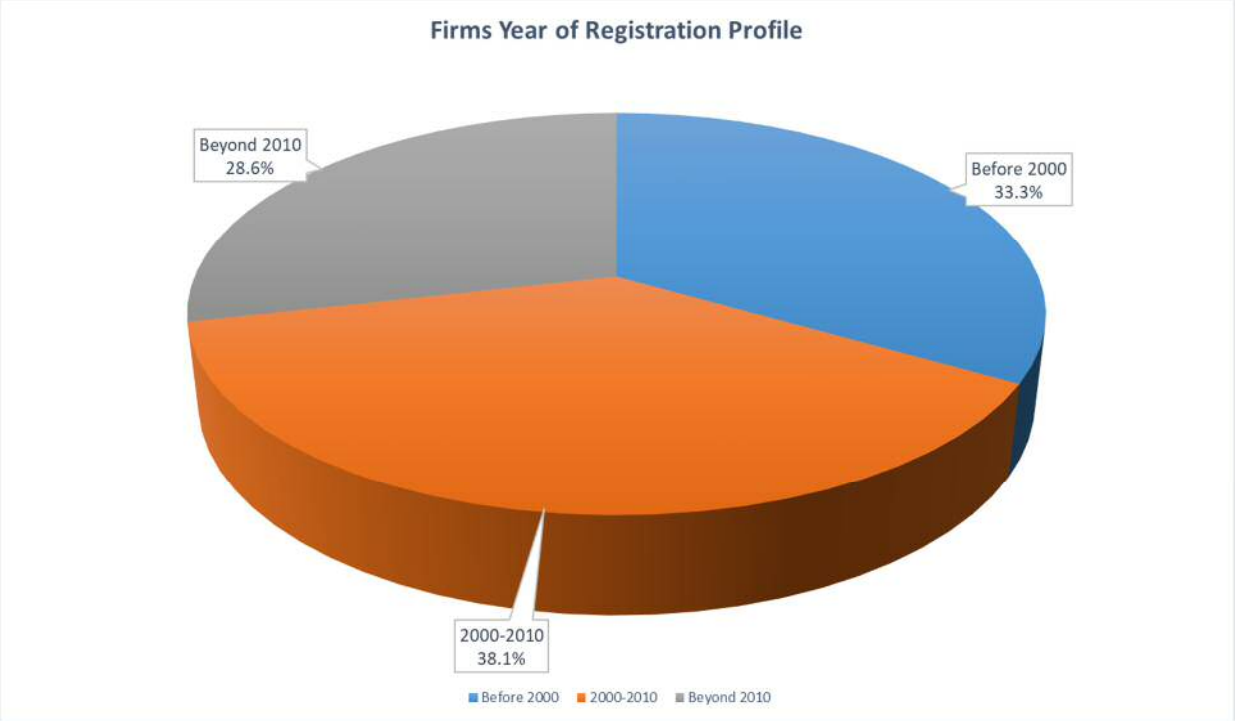
Table 5.7 below indicates the profile of the respondents' organisations' SMME status. Out of the 63 usable questionnaires, the majority of the organisations (85.7%) were classified as SMMEs. A total of 14.3 per cent did not qualify as SMMEs.

Table 5. 7 - Respondents' Organisations' SMME Status Profile

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Yes	54	85.7	85.7	85.7
	No	9	14.3	14.3	100.0
	Total	63	100.0	100.0	

Figure 5.6 indicates the profile of the respondents' organisations' year of registration. Out of the 63 usable questionnaires, 33 per cent were registered before the year 2000, 38 per cent were registered between the years 2000-2010, while 29 per cent were registered after the year 2010.

Figure 5. 6 - Respondents' Organisations' Year of Registration Profile



5.4 DESCRIPTIVE STATISTICS

Table 5.8 below presents the descriptive statistics from the statistical analysis.

Table 5. 8 - Descriptive Statistics

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic
PERSONAL ATTITUDE	63	6.00	1.00	7.00	5.9270	0.12479	0.99047	0.981
SUBJECTIVE NORMS	63	5.33	1.67	7.00	5.2646	0.16733	1.32816	1.764
ENTREPRENEURIAL INTENTION	63	6.00	1.00	7.00	5.3079	0.16316	1.29507	1.677
PRE-ENTREPRENEURIAL JOB DISSATISFACTION	63	5.71	1.00	6.71	4.5125	0.15776	1.25216	1.568
PRE-ENTREPRENEURIAL JOB DISSATISFACTION – SINGLE ITEM MEASURE	63	6	1	7	4.65	0.195	1.547	2.392
Economic Opportunity	63	6.00	1.00	7.00	5.5608	0.14544	1.15443	1.333
Autonomy	63	3.50	3.50	7.00	5.9643	0.10243	0.81302	0.661
Participate in the whole process	63	6.00	1.00	7.00	5.7381	0.14483	1.14953	1.321
Challenges	63	2.25	4.75	7.00	6.2381	0.07908	0.62770	0.394
Perceived behavioural control	63	4.33	2.67	7.00	5.2593	0.14300	1.13505	1.288
Valid N (list wise)	63							

5.5 ENTREPRENEURIAL INTENTIONS

The association between the different constructs of Entrepreneurial Intention, i.e. the personal attitude (PA) towards becoming entrepreneurs; the perceived behavioural control (PBC); the subjective norms (SN) and the Entrepreneurial Intention were tested using hierarchical multiple regression analysis.

Before testing the association between the different constructs i.e. the independent variables (see section 4.3.4.2) and the dependent variable (see section 4.3.4.1), the age group of the respondents was determined through statistical analysis to be the control variable.

5.5.1 PERSONAL ATTITUDE (PA)

Table 5.9 indicates a summary of the output data from the multiple regression analysis. For both models one and two, entrepreneurial intention was the dependent variable in the analysis. Model 1 was run with only age group as the independent variable and model 2 was run with both age group and personal attitude as the independent variable.

Table 5. 9 - Regression Model Summary – Personal Attitude

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.181[a]	0.033	0.017	1.28401
2	.213[b]	0.045	0.013	1.28634

a. Predictors: (Constant), Age Group

b. Predictors: (Constant), Age Group, PERSONAL ATTITUDE

Output data from the analysis indicated that there was a weak correlation between personal attitude towards the intention to be an entrepreneur and entrepreneurial intention. The R^2 value (also called the coefficient of determination) suggested that for the base model 1, the control variable age group explained only 3.3 per cent of the variance in entrepreneurial intention in comparison to model 2. Model 2 was a combination of the control variable and the antecedent personal attitude which explained only 4.5 per cent of the variance in entrepreneurial intention; indicating that the control variable explained the least of the variance in entrepreneurial intention. The results showed that personal attitude did not have a strong positive correlation with entrepreneurial intention, and it thus could not be considered a predictor of entrepreneurial intention. The adjusted R^2 values from the analysis also supported this finding. This outcome contradicted the findings of Malebana and Swanepoel (2015) in a similar study conducted in the RSA, where they had determined that entrepreneurial intention had a strong and positive correlation ($r = 0.70$) with the personal attitude towards being an entreprenuer.

Table 5.10 indicates a summary of the output data from the ANOVA analysis over two runs. Model 1 was run with age group as the independent variable and entrepreneurial intention as the dependent variable. The second model (model 2) was run with personal attitude and age group as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 10 - Results from the ANOVA Analysis over Two Runs – Personal Attitude

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.416	1	3.416	2.072	.155[b]
	Residual	100.570	61	1.649		
	Total	103.986	62			
2	Regression	4.706	2	2.353	1.422	.249[c]
	Residual	99.280	60	1.655		
	Total	103.986	62			

a. Dependent Variable: ENTREPRENEURIAL INTENTION

b. Predictors: (Constant), Age Group

c. Predictors: (Constant), Age Group, PERSONAL ATTITUDE

Output from the ANOVA analysis indicated that for both models **Sig**. > 0.05 tested at a 95 per cent confidence interval. Therefore, personal attitude was not a statistically significant predictor of entrepreneurial intention. This outcome contradicted findings by Malebana and Swanepoel (2015), who found in their study that personal attitude was a statistically significant predictor of entrepreneurial intention ($p<0.01$).

Table 5.11 below indicates the output data from the ANOVA analysis over two runs. The first model was run with age group as the independent variable and entrepreneurial intention as the dependent variable. The second model was run with age group and personal attitude as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 11 - Results from the ANOVA Analysis over Two Runs – Entrepreneurial Intention

Coefficients[a]

		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.195	0.637		9.721	0.000
	Age Group	-0.273	0.189	-0.181	-1.439	0.155
2	(Constant)	5.328	1.172		4.546	0.000
	Age Group	-0.271	0.190	-0.180	-1.430	0.158
	PERSONAL ATTITUDE	0.146	0.165	0.111	0.883	0.381

a. Dependent Variable: ENTREPRENEURIAL INTENTION

The output data from the analysis indicated that, for both models, both **t** and **Sig**. were greater than 0.05. Therefore, personal attitude and age group were not statistically significant predictors of entrepreneurial intention.

5.5.2 SUBJECTIVE NORMS (SN)

Table 5.12 below indicates a summary of the output data from the multiple regression analysis. For both models 1 and 2, entrepreneurial intention was the dependent variable in the analysis. Model 1 was run with only age group as the independent variable and model 2 was run with both age group and personal attitude as the independent variables.

Table 5. 12 - Regression Model Summary – Subjective Norms

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.181[a]	0.033	0.017	1.28401
2	.181[b]	0.033	0.001	1.29467

a. Predictors: (Constant), Age Group

b. Predictors: (Constant), Age Group, SUBJECTIVE NORM

The output data from the analysis indicated that there was a weak correlation between subjective norms and entrepreneurial intention. The R^2 value (also called the coefficient of determination) suggested that for the base model 1, the control variable age group explained only 3.3 per cent of the variance in entrepreneurial intention in comparison to model 2. Model 2, a combination of the control variable and the antecedent subjective norms, still explained 3.3 per cent of the variance in entrepreneurial intention, indicating that the control variable explained the least of the variance in entrepreneurial intention. The results showed that subjective norms did not have a strong positive correlation with entrepreneurial intention. It thus could not be considered a predictor of entrepreneurial intention. The adjusted R^2 values from the analysis also supported this finding. This outcome contradicted the findings of Malebana and Swanepoel (2015), whose similar study in the RSA determined that entrepreneurial intention had a moderate and positive correlation ($r = 0.30$) with subjective norms.

Table 5.13 indicates a summary of the output data from the ANOVA analysis over two runs. Model 1 was run with age group as the independent variable and entrepreneurial intention as the dependent variable. The second model (model 2) was run with subjective

norms and age group as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 13 - Results from the ANOVA Analysis over Two Runs – Personal Attitude

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.416	1	3.416	2.072	.155[b]
	Residual	100.570	61	1.649		
	Total	103.986	62			
2	Regression	3.416	2	1.708	1.019	.367[c]
	Residual	100.570	60	1.676		
	Total	103.986	62			

a. Dependent Variable: ENTREPRENEURIAL INTENTION

b. Predictors: (Constant), Age Group

c. Predictors: (Constant), Age Group, SUBJECTIVE NORM

The output data from the ANOVA analysis indicated that for both models, **Sig**. > 0.05 tested at a 95 per cent confidence interval. Therefore, subjective norms was not a predictor of entrepreneurial intention. This outcome contradicted Malebana and Swanepoel's (2015) findings that subjective norms was a statistically significant predictor of entrepreneurial intention ($p<0.01$).

Table 5.14 indicates the output data from the from the ANOVA analysis over two runs. The first model was run with age group as the independent variable and entrepreneurial intention as the dependent variable. The second model was run with age group and subjective norms as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 14 - Results from the ANOVA Analysis over Two Runs – Subjective Norms

Coefficients[a]

Model		Unstandardized Coefficients		Standardised Coefficients	t	
		B	Std. Error	Beta		Sig.
1	(Constant)	6.195	0.637		9.721	0.000
	Age Group	-0.273	0.189	-0.181	-1.439	0.155
2	(Constant)	6.198	0.900		6.884	0.000
	Age Group	-0.273	0.191	-0.181	-1.427	0.159
	SUBJECTIVE NORM	-0.001	0.124	-0.001	-0.005	0.996

a. Dependent Variable: ENTREPRENEURIAL INTENTION

The output from the analysis indicated that for both models, both **t** and **Sig**. were greater than 0.05. Therefore, subjective norms and age group were not statistically significant predictors of entrepreneurial intention.

5.5.3 PERCIEVED BEHAVIOURAL CONTROL (PBC)

Table 5.15 below indicates a summary of the output data from the multiple regression analysis. For both models 1 and 2, entrepreneurial intention was the dependent variable in the analysis. Model 1 was run with only age group as the independent variable and model 2 was run with both age group and perceived behavioural control as the independent variable.

Table 5. 15 - Regression Model Summary – Perceived Behavioural Control

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.181[a]	0.033	0.017	1.28401
2	.322[b]	0.104	0.074	1.24643

a. Predictors: (Constant), Age Group

b. Predictors: (Constant), Age Group, Perceived behavioural control

The output data from the analysis indicated that there was a stronger correlation between perceived behavioural control and entrepreneurial intention. The R^2 value suggested that

for the base model 1, the control variable age group explained only 3.3 per cent of the variance in entrepreneurial intention in comparison to model 2. Model 2, a combination of the control variable and the antecedent personal attitude, explained only 10.4 per cent of the variance in entrepreneurial intention, indicating that the control variable explained the least of the variance in entrepreneurial intention. The results showed that perceived behavioural control had a moderate positive correlation with entrepreneurial intention. Perceived behavioural control could thus be considered a predictor of entrepreneurial intention. The adjusted R^2 values from the analysis also supported this finding. This outcome was consistent with the findings of Malebana and Swanepoel's (2015) study conducted in the RSA, where entrepreneurial intention had a moderate and positive correlation (r = 0.45) with perceived behavioural control.

Table 5.16 below indicates a summary of the output data from the ANOVA analysis over two runs. Model 1 was run with age group as the independent variable and entrepreneurial intention as the dependent variable. Model 2 was run with perceived behavioural control and age group as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 16 - Results from the ANOVA Analysis – Perceived Behavioural Control

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.416	1	3.416	2.072	.155[b]
	Residual	100.570	61	1.649		
	Total	103.986	62			
2	Regression	10.771	2	5.386	3.467	.038[c]
	Residual	93.215	60	1.554		
	Total	103.986	62			

a. Dependent Variable: ENTREPRENEURIAL INTENTION
b. Predictors: (Constant), Age Group
c. Predictors: (Constant), Age Group, Perceived Behavioural Control

The output from the ANOVA analysis indicated that for the second model **Sig. < 0.05** tested at a 95 per cent confidence interval. Perceived behavioural control could therefore be considered a predictor of entrepreneurial intention. This outcome was consistent with findings by Malebana and Swanepoel (2015), where perceived behavioural control was a statistically significant predictor of entrepreneurial intention ($p<0.01$).

Table 5.17 indicates the output data from the ANOVA analysis over two runs. The first model was run with age group being the independent variable and entrepreneurial

intention as the dependent variable. The second model was run with age group and perceived behavioural control as the independent variables and entrepreneurial intention as the dependent variable.

Table 5. 17 - Results from the ANOVA Analysis over Two Runs – Perceived Behavioural Control

Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.195	0.637		9.721	0.000		
	Age Group	-0.273	0.189	-0.181	-1.439	0.155	1.000	1.000
2	(Constant)	4.699	0.925		5.079	0.000		
	Age Group	-0.305	0.184	-0.203	-1.652	0.104	0.994	1.006
	Perceived Behavioural Control (PBC)	0.304	0.140	0.267	2.176	0.034	0.994	1.006

a. Dependent Variable: ENTREPRENEURIAL INTENTION

The output from the analysis indicated that in both models, **Sig**. was less than 0.05. Perceived behavioural control was therefore considered a statistically significant predictor of entrepreneurial intention.

5.6 JOB SATISFACTION

Table 5.18 indicates a summary of the output data from the multiple regression analysis. For both models 1 and 2, job satisfaction was the dependent variable in the analysis. Model 1 was run with only age group as the independent variable and model 2 was run with both age group and job satisfaction as the independent variables.

Table 5. 18 – Regression Model Summary – Job Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.076[a]	0.006	-0.011	1.25872
2	.358[b]	0.128	0.068	1.20884

a. Predictors: (Constant), Age Group

b. Predictors: (Constant), Age Group, Autonomy, Economic Opportunity, Participate in the Whole Process

The output data from the analysis indicated that there was a moderate positive correlation between the constructs; participate in the whole process, economic opportunity, autonomy and job satisfaction. The R^2 value suggested that for the base model 1, the control variable age group explained only 0.6 per cent of the variance in entrepreneurial intention, in comparison to model 2, which was a combination of the control variable and the three constructs i.e. participate in the whole process, economic opportunity and autonomy. This combination explained 12.8 per cent of the variance in entrepreneurial intention, indicating that the control variable explained the least of the variance in entrepreneurial intention. The results showed that the three constructs: participate in the whole process, economic opportunity and autonomy, had a moderate positive correlation with job satisfaction and could thus be considered predictors of job satisfaction. The adjusted R^2 values from the analysis also supported this finding.

Table 5.19 below indicates a summary of the output data from the ANOVA analysis over two runs. Model 1 was run with age group as the independent variable and job satisfaction as the dependent variable. Model 2 was run with; age group, participate in the whole process, economic opportunity and autonomy as the independent variables and job satisfaction as the dependent variable.

Table 5. 19 - Results from the ANOVA Analysis – Job Satisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.563	1	0.563	0.355	.553[b]
	Residual	96.646	61	1.584		
	Total	97.210	62			
2	Regression	12.455	4	3.114	2.131	.088[c]
	Residual	84.755	58	1.461		
	Total	97.210	62			

a. Dependent Variable: JOB SATISFACTION
b. Predictors: (Constant), Age Group
c. Predictors: (Constant), Age Group, Autonomy, Economic Opportunity, Participate in the Whole Process

The output from the ANOVA analysis indicated that for model 2, **Sig. < 0.05** tested at a 95 per cent confidence interval. The constructs; participate in the whole process, economic opportunity and autonomy could thus be considered statistically significant predictors of job satisfaction.

Table 5.20 indicates the output data from the ANOVA analysis over two runs. The first model was run with age group being the independent variable and job satisfaction as the dependent variable. The second model was run with age group and the constructs; participate in the whole process, economic opportunity and autonomy as the independent variables and job satisfaction as the dependent variable.

Table 5. 20 - Results from the ANOVA Analysis over Two Runs – Job Satisfaction

Coefficients[a]

		Unstandardised Coefficients		Standardised Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.152	0.625		6.646	0.000		
	Age Group	0.111	0.186	0.076	0.596	0.553	1.000	1.000
2	(Constant)	1.902	1.552		1.226	0.225		
	Age Group	0.052	0.182	0.036	0.286	0.776	0.962	1.039
	Economic Opportunity	0.313	0.137	0.288	2.283	0.026	0.942	1.062
	Autonomy	0.308	0.193	0.200	1.599	0.115	0.959	1.043
	Participate in the Whole Process	-0.198	0.140	-0.182	-1.418	0.162	0.912	1.096

a. Dependent Variable: JOB SATISFACTION

The output from the analysis for the construct of economic opportunity showed that, **Sig**. was less than 0.05. Therefore, economic opportunity could be considered a statistically significant predictor of job satisfaction.

Table 5.21 below indicates the output data from the descriptive statistical analysis – job satisfaction.

Table 5. 21 - Descriptive Statistics - Job Satisfaction

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
JOB SATISFACTION								
Economic Opportunity	63	6.00	1.00	7.00	**5.5608**	0.14544	1.15443	1.333
Autonomy	63	3.50	3.50	7.00	**5.9643**	0.10243	0.81302	0.661
Participate in the Whole Process	63	6.00	1.00	7.00	**5.7381**	0.14483	1.14953	1.321
Challenges	63	2.25	4.75	7.00	**6.2381**	0.07908	0.62770	0.394
Perceived Behavioural Control	63	4.33	2.67	7.00	**5.2593**	0.14300	1.13505	1.288
Valid N (list wise)	63							

The output data from the analysis indicated that the majority of the respondents (79%) felt that economic opportunity (EO) was important to consider when deciding on a future career path; 85 per cent of the respondents felt the same about autonomy (AT), 82 per cent felt the same about participate in the whole process (PWP) and 89 per cent felt the same about challenges (CH). The constructs of self-realisation (SR) and authority (AT) did not attract statistically consistent responses.

5.7 PRE-ENTREPRENEURIAL JOB-DISSATISFACTION

The questionnaire for measuring pre-entrepreneurial job-dissatisfaction as a reason for choosing self-employment in terms of the scales developed by Warr et al. (1979) was developed to measure the total job satisfaction, expressed as a sum of all the separate items.

Table 5.22 below indicates the output data from the descriptive statistical analysis.

Table 5. 22 - Descriptive Statistics - Pre-entrepreneurial Job-dissatisfaction

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic
PRE-ENTREPRENEURIAL JOB-DISSATISFACTION	63	5.71	1.00	6.71	**4.51**	0.15776	1.25216	1.568
PRE-ENTREPRENEURIAL JOB-DISSATISFACTION – SINGLE ITEM MEASURE	63	6	1	7	**4.65**	0.195	1.547	2.392
Valid N (list wise)	63							

The output data from the analysis indicated that the majority of the respondents (64%) did not experience pre-entrepreneurial job-dissatisfaction prior to choosing self-employment. This result was also confirmed by the results from the singe measure item where 66 per cent of the respondents confirmed that they did not experience pre-entrepreneurial job-dissatisfaction.

5.8 CONCLUSION

The study required the measurement of the prevalence of Push motivation factors in the form of pre-entrepreneurial job-dissatisfaction and Pull motivation factors in the form of job-satisfaction impacting total early-stage entrepreneurial activity in the Built Environment sector. It also required the confirmation of Ajzen's Theory of Planned Behaviour as a suitable model for predicting entrepreneurial intentions within the Built Environment sector and its measurement thereof. Data was collected using structured and validated questionnaires designed by: Linan and Chen (2009) for measuring entrepreneurial intention; Warr et al. (1979) for measuring pre-entrepreneurial job-dissatisfaction; and Kolvereid (1996a) for measuring job-satisfaction as a reason for choosing self-employment.

Output data from the statistical analysis is sub-divided broadly into two categories, namely, output data from a hierarchical multiple regression statistical analysis (Entrepreneurial Intentions & job satisfaction) and output data from an independent t-test (pre-entrepreneurial job-dissatisfaction). A comprehensive profile for the respondents and their organizations is also developed.

6.0 CHAPTER SIX: DISCUSSION OF RESULTS

6.1 INTRODUCTION

The study sought to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment. Previous chapters have demonstrated the persistently low levels of entrepreneurial activities in the RSA in comparison to other African countries and the need to shed some light into how the TEA rate can be increased within the professional services sector, by focusing on Built Environment professionals.

Research questions for each of the focus areas of this study, which were structured to answer the most pertinent of questions for each of the focus areas, were presented together with the respective hypothesis and associated null-hypothesis specific to each of the focus areas was developed. Data was collected using structured and validated questionnaires created and distributed from the Survey Monkey e-platform and later subjected to statistical analysis. Output data from the statistical analysis is sub-divided broadly into two categories, namely, output data from a hierarchical multiple regression statistical analysis (Entrepreneurial Intentions & job satisfaction) and output data from an independent t-test (pre-entrepreneurial job-dissatisfaction). A comprehensive profile for the respondents and their organizations is also developed.

In this chapter, results from the statistical analysis aimed at answering the three research questions identified for each of the focus areas of this study and hypothesis and associated null-hypothesis specific to each of the focus areas developed accordingly (see section 3.0), are discussed in great detail.

6.2 RESPONDENTS' PROFILES AND COMPANY VARIABLES

It was generally accepted that men had stronger Entrepreneurial Intentions than women (Shinnar et al., 2012). Surveys conducted by the Global Entrepreneurship Monitor in 2011 also confirmed that there were fewer female entrepreneurs in comparison to their male counterparts (Kelley, Singer, & Herrington, 2011). Section A of the questionnaire required that the respondents indicate their gender. According to Figure 5.1, the majority (90.5%) of the respondents were indeed males, with less than 10 per cent of them women. The same statistic applied to the founding members (see Table 5.2) and executive shareholders of these organisations (see Table 5.3). These findings confirmed the need for increased entrepreneurial activity by women in the Built Environment sector.

In Section A of the questionnaire, the respondents were also required to indicate their age group. According to the figures provided in Figure 5.2, the majority of the respondents (49.2%) were over the age of 50, which was past their prime. Sadly, only a mere 3.2 per cent of the respondents were below the age of 30. This statistic could be inferred into to the founding members (see Table 5.2) and executive shareholders of these organisations (see Table 5.3). It could also be an indicator of a possible succession gap in the Built Environment sector.

In the RSA, the Department of Trade and Industry (DTI) classifies SMMEs on the basis of their annual turnover (Bureau for Economic Research, 2016). SMMEs are identified as one of the key drivers of economic growth (see Figure 1.2). The respondents were required to indicate the SMME status of their organisations, and according to the figures provided in Table 5.7, the majority (85.7%) of the respondents' organisations qualified to be categorised as SMMEs. According to the figures presented in Figure 5.6, 73 per cent of the organisations were registered before the year 2010. However, according to the figures presented in Figure 5.5, the majority of the organisations still classified as small firms with an annual turnover equal to or less than R11.5m. This was despite the duration for which they had been in existence. These extended periods of limited annual turnover could be an indication of either a stagnant or shrinking Built Environment sector market.

6.3 DISCUSSION OF FINDINGS RELATING TO RESEARCH QUESTION 1:

Is Entrepreneurial Intention (EI) a precursor for choosing self-employment in the Built Environment sector?

The purpose of this part of the study was to investigate if the respondents had entrepreneurial intentions prior to choosing self-employment and also to determine if Ajzen's Theory of Planned Behaviour could be utilised to predict entrepreneurial intention amongst Built Environment professionals in the RSA.

Ajzen's Theory of Planned Behaviour (see section 2.2) explained intentions by means of personal attitudes towards the behaviour, perceived behavioural control and subjective norms (Engle, et al., 2010; Fretschner & Weber, 2013; Gelderen, et al., 2008; Lakovleva et al., 2011; Linan, Urbano & Guerrero, 2011; Renko et al., 2012). According to the TPB, beliefs about attitude, control and norms influenced behaviour and were mediated by intentions. The effectiveness and robustness of the TPB in predicting entrepreneurial intention has been demonstrated by many scholars such as Engle et al. (2010); Gelderen et al. (2008); Kautonen, Gelderen and Tornikoski (2013) and Malebana and Swanepoel

(2015), who all proved strong correlations between all three of the antecedents of entrepreneurial intention, i.e. the attitudes towards the behaviour, the perceived behavioural control and the subjective norms.

The respondents were requested to provide answers to a total of 12 questions (see Section C of the questionnaire), forming the antecedents of their entrepreneurial intention; their personal attitudes towards the behaviour [PA1-PA3]; their perceived behavioural control [PBN1 – PBN6] and their subjective norms [SN1-SN3] (see Table 4.3 & see Figure 4.2). Table 5.23 indicated the correlations between their entrepreneurial intentions and their antecedents. The results indicated some significant negative and positive correlations amongst entrepreneurial intentions and its antecedents thereof. According to the results, entrepreneurial intention did not have a significant and positive correlation with personal attitude or with subjective norms. A moderate positive significant correlation was observed between perceived behavioural control and subjective norms (r=0.410, Sig=0.001). The correlations were also consistent with the outcomes from the multiple regression analysis presented.

The results also indicated a weak positive, statistically significant correlation between entrepreneurial intention and perceived behavioural control (r=0.251, Sig=0.048). Perceived behavioural controls denoted the perceived level of ease or difficulty of performing the behaviour (Kautonen, Gelderen & Fink, 2013; Kautonen, Gelderen & Tornikoski, 2013; Lakovleva et al., 2011; Linan, Rodriguez-Cohard & Rueda-Cantuche, 2011). According to the outcomes of the multiple regression analysis (see Table 5.23), the respondents' age groups were identified as the moderating variable. Taking this into account, and considering both results, it was conceivable that the respondents' ages had a direct influence on the level of ease of performing the behaviour of deciding to be self-employed.

Table 5. 23 - Correlations amongst Variables - Entrepreneurial Intention

Correlations

		PERCIEVED BEHAVIOURAL CONTROL (PBC)	PERSONAL ATTITUDE (PA)	SUBJECTIVE NORM (SN)	ENTREPRENEURIAL INTENTION (EI)
PERCIEVED BEHAVIOURAL CONTROL (PBC)	Pearson Correlation	1	0.028	**.410****	**.251***
	Sig. (2-tailed)		0.830	**0.001**	**0.048**
	N	63	63	63	63
PERSONAL ATTITUDE (PA)	Pearson Correlation	0.028	1	0.005	0.113
	Sig. (2-tailed)	0.830		0.968	0.378
	N	63	63	63	63
SUBJECTIVE NORM (SN)	Pearson Correlation	**.410****	0.005	1	-0.007
	Sig. (2-tailed)	**0.001**	0.968		0.957
	N	63	63	63	63
ENTREPRENEURIAL INTENSION	Pearson Correlation	**.251***	0.113	-0.007	1
	Sig. (2-tailed)	**0.048**	0.378	0.957	
	N	63	63	63	63

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Personal attitude referred to the individuals' evaluations of the target behaviour (favourable or unfavourable) (Kautonen, Gelderen, & Fink, 2013; Kautonen, Gelderen, & Tornikoski, 2013; Lakovleva, Kolvereid, & Stephan, 2011; Linan, Rodriguez-Cohard, & Rueda-Cantuche, 2011). It was plausible to expect the respondents' ages to have had an influence on their ability to evaluate the target behaviour. This observation was supported by the findings presented in Table 5.9. The lack of a strong and statistically significant correlation between entrepreneurial intention and personal attitude, as presented in Table 5.23, supported the outcomes of the multiple regression analysis presented in Section 5.5.1. The presence of a weak correlation between entrepreneurial intention and personal attitude did not imply that personal attitude was a predictor of entrepreneurial intention.

Subjective norms captured the opinions of social reference groups (such as family and friends) regarding whether or not the individuals should have engaged in the behaviour (Kautonen, Gelderen, & Fink, 2013; Kautonen, Gelderen, & Tornikoski, 2013; Lakovleva, Kolvereid, & Stephan, 2011; Linan, Rodriguez-Cohard, & Rueda-Cantuche, 2011). The lack of a strong and statistically significant correlation between entrepreneurial intention and subjective norms) was also consistent with the outcomes of the multiple regression analysis presented in Section 5.5.2. It did not imply that subjective norms were a predictor of entrepreneurial intention. The results indicated a weak positive, statistically

significant correlation between entrepreneurial intention and perceived behavioural control (r=0.251, Sig=0.048). This finding was consistent with the results presented in Section 5.5.3, which indicated that perceived behavioural control could be considered a predictor of entrepreneurial intention.

According to the findings of this study, perceived behavioural control was the only predictor of entrepreneurial intention (r=0.251, Sig=0.048). The same could not be said for the other two antecedents of entrepreneurial intention determined in accordance with the Theory of Planned Behaviour. These findings were not in line with the findings of previous studies which were able to determine positive and statistically significant correlations between entrepreneurial intention and all of its three antecedents (Engle, et al., 2010), (Gelderen, et al., 2008), (Kautonen, Gelderen, & Tornikoski, 2013), (Linan & Chen, 2009)). Malebana and Swanepoel (2015) also managed to determine positive and statistically significant correlations between entrepreneurial intention and all of its three antecedents in a similar study conducted in the RSA. All these studies supported the use of Ajzen's Theory of Planned Behaviour as a valuable model for understanding entrepreneurial intention.

The respondents were also requested to provide answers to a total of six questions (i.e. EI1-EI6) on a seven point Likert scale (1 = strongly disagree, 7 = strongly agree), aimed at determining whether or not they had entrepreneurial intentions prior to choosing self-employment. Note that at the time of the study, the respondents had already chosen self-employment and were thus already entrepreneurs. According to the findings of this study, presented in Figure 5.5, and based on the statistical means for self-employment, the majority of the respondents (75.7%) had the intent to be self-employed prior to choosing self-employment.

Only 24.3 per cent of the respondents did not have the prior intent to be self-employed. Taking into account that all the employees were already self-employed at the time of partaking in the study, the respondents forming part of this group were accidental entrepreneurs, referring to individuals who somehow found themselves self-employed without necessarily having had the specific intention to start a business.

In conclusion, according to the findings of this study:

- Using Ajzen's Theory of Planned Behaviour, perceived behavioural control was the only predictor of entrepreneurial intention (r=0.251, Sig=0.048) in the Built Environment sector.

- The majority of the respondents (75.7%) had entrepreneurial intention prior to choosing self-employment.

Based on these results, the hypothesis **H_{01}** - Entrepreneurial intention is a precursor for choosing self-employment for Built Environment Professionals, **was supported.**

6.4 DISCUSSION OF FINDINGS RELATING TO RESEARCH QUESTION 2

Does the lure of job satisfaction Pull Built Environment Professionals into choosing self-employment?

The purpose of this part of the study was to investigate if the respondents considered job-satisfaction as a key deciding factor when choosing self-employment and also to determine if job satisfaction could be predicted through the constructs of economic opportunity, challenge, autonomy, self-realisation, authority and the ability to participate in the whole process in the Built Environment sector in the RSA.

A non-pecuniary aspect that has often been advocated as a major driving force in self-employment was the one associated with job (dis-)satisfaction (Guerra & Patuelli, 2016). Job satisfaction could be defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. Numerous entrepreneurship researchers discussed Pull factors under the umbrella of job satisfaction brought about by being self-employed (Schjoedt & Shaver, 2007; Carsrud & Brannback, 2011; Dalborg & Wincent, 2015; Lange, 2012). A large number of studies supported the notion that the self-employed enjoyed higher levels of job-satisfaction compared to salaried employees (Lange, 2012).

The respondents were requested to provide answers to a total of 19 questions (see Section E of the questionnaire), addressing the six constructs of job-satisfaction, namely; economic opportunity [EO1-EO3]; challenge [CH1 – CH4]; autonomy [AT1-AT4]; authority [ATH1-ATH3]; self-realisation [SR1-SR4]; and participation in the whole process [PWP1-PWP2]. Table 5.24 indicated the correlations between the different constructs of job satisfaction. The results indicated some significant negative and positive correlations amongst some of the different constructs of job satisfaction. A weak positive significant correlation was observed between challenges and economic opportunity (r=0.245, Sig=0.053). A moderate positive significant correlation was observed between challenges and participate in the whole process (r=0.418, Sig=0.001).

The correlations presented in Table 5.24 were also consistent with the outcomes from the multiple regression analysis presented herewith.

Table 5. 24 - Correlations amongst Variables – Job Satisfaction

Correlations

		Participate in the Whole Process	Challenges	Economic Opportunity	Autonomy
Participate in the Whole Process	Pearson Correlation	1	**.418****	0.191	0.195
	Sig. (2-tailed)		**0.001**	0.133	0.126
	N	63	63	63	63
Challenges	Pearson Correlation	**.418****	1	**0.245**	0.203
	Sig. (2-tailed)	**0.001**		**0.053**	0.111
	N	63	63	63	63
Economic Opportunity	Pearson Correlation	0.191	**0.245**	1	0.016
	Sig. (2-tailed)	0.133	**0.053**		0.901
	N	63	63	63	63
Autonomy	Pearson Correlation	0.195	0.203	0.016	1
	Sig. (2-tailed)	0.126	0.111	0.901	
	N	63	63	63	63

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The respondents were also requested to provide answers to a total of 19 questions (see Section E of the questionnaire) regarding: economic opportunity [EO1-EO3]; challenge [CH1 – CH4]; autonomy [AT1-AT4]; authority [ATH1-ATH3]; self-realisation [SR1-SR4]; and participation in the whole process [PWP1-PWP2]; all on a seven point Likert scale (1 = strongly disagree, 7 = strongly agree), aimed at determining the degree of importance of considering each of these factors when deciding on a future career path. Note that at the time of the study, the respondents had already chosen self-employment, thus were already entrepreneurs.

According to the findings of this study, as presented in Table 5.8, and based on the statistical means, the majority of the respondents (79%) felt that economic opportunity was important to consider when deciding on a future career path. A total of 85 per cent of the respondents felt the same about Autonomy; 82 per cent felt the same about participate in the whole process; and 89 per cent felt the same about challenges. The constructs of self-realisation and authority did not attract statistically consistent responses.

In conclusion, according to the findings of this study:

- The majority of the respondents considered economic opportunity, autonomy, participate in the whole process and challenges as important to consider when deciding on their future career paths.
- These constructs formed the majority of the determinants of job-satisfaction as a reason for choosing self-employment, in terms of the factors identified by Kolvereid (1996a).
- It could therefore be concluded, within reason, that the majority of the respondents regarded job-satisfaction as an important factor to consider when deciding on new career paths.

Based on these results, the hypothesis **H_{02} - The lure of job-satisfaction pulls Built Environment Professionals into self-employment was supported.**

6.5 DISCUSSION OF FINDINGS RELATING TO RESEARCH QUESTION 3

Does pre-entrepreneurial job dissatisfaction Push Built Environment Professionals into choosing self-employment?

Since very early entrepreneurship research, one of the most frequently reported conditions accompanying the decision to become self-employed was that of dissatisfaction with a previous job (Brockhaus, 1980; Guerra & Patuelli, 2016). According to Push Entrepreneurship Theory, individuals with entrepreneurial intentions were pushed into choosing an entrepreneurial career as a result of frustrations with their existing jobs i.e. pre-entrepreneurial job dissatisfaction (Schjoedt & Shaver, 2007) and deterioration in the levels of their current job-satisfaction (Dawson & Henley, 2012). The purpose of this part of the study was to investigate if the respondents experienced job-dissatisfaction at their last place of employment prior to choosing self-employment in the Built Environment sector in the RSA.

The respondents were also requested to provide answers to a total of 16 questions. Questions PF1-PF16 (see Table 4.5 and Section D of the questionnaire) aimed at determining their degree of satisfaction or dissatisfaction with the features represented by each of the questions, relative to their last place of employment prior to choosing self-employment. Question PF16 was a single measure item which required the respondents to consider the previous questions PF1-PF15 and indicate the degree of satisfaction or dissatisfaction in terms of how they felt about their jobs as a whole at the time of deciding

upon entrepreneurship. All the questions were presented on a seven point Likert scale (1 = extremely dissatisfied, 7 = extremely satisfied). Note that at the time of the study, the respondents had already chosen self-employment i.e. were already entrepreneurs.

According to the findings of this study, and based on the statistical means, the majority of the respondents (64%) did not experience pre-entrepreneurial job-dissatisfaction prior to choosing self-employment. This result was also confirmed by the results from the singe measure item, where 66 per cent of the respondents confirmed that they did not experience pre-entrepreneurial job-dissatisfaction.

In conclusion, according to the findings of this study:

- The majority of the respondents confirmed not having experienced pre-entrepreneurial job-dissatisfaction prior to choosing self-employment;
- This observation was confirmed by results from the single measure item.

Based on these results, the hypothesis **H_{03}: Pre-entrepreneurial job dissatisfaction pushes Built Environment Professionals into entrepreneurship could thus not be supported.**

6.6 CONCLUSION

Respondents Profile and Company variable

Results from the statistical analysis confirm the widely held view that there are fewer female entrepreneurs in comparison to their male counterparts (Kelley, Singer, & Herrington, 2011), with over 90 per cent of the respondents being male. This anomaly also applied to the founding members and executive shareholders of these organisations. These findings confirmed the need for increased entrepreneurial activity by women in the Built Environment sector. In addition, a majority of the respondents were over the age of 50 years, with only a mere 3.2 per cent of the respondents were below the age of 30 years.

Is Entrepreneurial Intention (EI) a precursor for choosing self-employment in the Built Environment sector? The purpose of this part of the study was to investigate if the respondents had entrepreneurial intentions prior to choosing self-employment and also to determine if Ajzen's Theory of Planned Behaviour could be utilised to predict entrepreneurial intention amongst Built Environment professionals in the RSA. Results indicated some significant negative and positive correlations amongst their

entrepreneurial intentions and the antecedents thereof. According to the results, entrepreneurial intention did not have a significant and positive correlation with personal attitude or with subjective norms. A moderate positive significant correlation was observed between perceived behavioural control and subjective norms. According to the findings of this study, perceived behavioural control was the only predictor of entrepreneurial intention. Based on these results, the hypothesis **H_{01}** - Entrepreneurial intention is a precursor for choosing self-employment for Built Environment Professionals, **was supported.**

Does the lure of job satisfaction Pull Built Environment Professionals into choosing self-employment? The purpose of this part of the study was to investigate if the respondents considered job-satisfaction as a key deciding factor when choosing self-employment and also to determine if job satisfaction could be predicted through the constructs of economic opportunity, challenge, autonomy, self-realisation, authority and the ability to participate in the whole process in the Built Environment sector in the RSA. The results indicated some significant negative and positive correlations amongst some of the different constructs of job satisfaction, in particular between challenges and economic opportunity and also between challenges and participate in the whole process. Based on these results, the hypothesis **H_{02} -** The lure of job-satisfaction pulls Built Environment Professionals into self-employment **was supported.**

Does pre-entrepreneurial job dissatisfaction Push Built Environment Professionals into choosing self-employment?

The purpose of this part of the study was to investigate if the respondents experienced job-dissatisfaction at their last place of employment prior to choosing self-employment in the Built Environment sector in the RSA. According to the findings of this study the majority of the respondents did not experience pre-entrepreneurial job-dissatisfaction prior to choosing self-employment. This result was also confirmed by the results from the singe measure item, where 66 per cent of the respondents confirmed that they did not experience pre-entrepreneurial job-dissatisfaction. Based on these results, the hypothesis **H_{03}:** Pre-entrepreneurial job dissatisfaction pushes Built Environment Professionals into entrepreneurship **could thus not be supported**

7.0 CHAPTER SEVEN: CONCLUSION

7.1 INTRODUCTION

The study required the measurement of the prevalence of Push motivation factors in the form of Pre-entrepreneurial job-dissatisfaction and Pull motivation factors in the form of job-satisfaction on total early-stage entrepreneurial activity in the Built Environment sector. It also required the confirmation of Ajzen's Theory of Planned Behaviour as a suitable model for predicting entrepreneurial intentions within the Built Environment sector and the measurement thereof.

Data was collected using structured and validated questionnaires designed by; Linan and Chen (2009) for measuring entrepreneurial intention, Warr et al (1979) for measuring pre-entrepreneurial job-dissatisfaction and Kolvereid (1996a) for measuring job-satisfaction as a reason for choosing self-employment. The questionnaire was created and distributed from the Survey Monkey e-platform. The validity and reliability of the measuring instruments were tested: for validity using principal components factor analysis and for reliability using Cronbach's alpha coefficient.

Out of the 250 questionnaires that were distributed, the response rate was just over 32 per cent, with a completion rate of 82 per cent. This could be attributable to the trend where many companies offering professional services within the Built Environment sector were not started by Built Environment Professionals registered as such in terms of any of the Acts recognised by the Council for Built Environment Act No. 43 of 2000 (see Section 4.2.1). Since the requirement for the target respondents was entrepreneurial activity in the form of either being a founding member of a firm or ownership of executive shares within such firms, the number of eligible respondents further decreased significantly.

According to surveys conducted by the Global Entrepreneurship Monitor in 2011, there were fewer female entrepreneurs in comparison to their male counterparts (Kelley, Singer, & Herrington, 2011). This observation was aligned with the generally accepted view that men had stronger Entrepreneurial Intentions than women (Shinnar, Giacomin, & Janssen, 2012). This was confirmed by the outcomes of this study. According to the data presented in Figure 5.1, the majority (90.5%) of the respondents were indeed males, with less than 10 per cent being women. The same statistic could be carried over to the founding members (see Table 5.2) and executive shareholders of these organisations (see Table 5.3). These findings confirmed the need for increased entrepreneurial activity by women in the Built Environment sector.

The outcomes from the study also suggested a possible succession gap in the Built Environment sector. According to the figures provided in Figure 5.2, the majority of the respondents (49.2%) were over the age of 50, which was past their prime. Sadly, only a mere 3.2 per cent of the respondents were below the age of 30. This statistic could be viewed in light of the statistics regarding the founding members (see Table 5.2) and executive shareholders of these organisations (see Table 5.3).

7.2 PRINCIPAL FINDINGS

7.2.1 ENTREPRENEURIAL INTENTION

The first part of the study sought to investigate if the respondents had entrepreneurial intention prior to choosing self-employment and also to determine if Ajzen's Theory of Planned Behaviour could be utilised to predict entrepreneurial intention amongst Built Environment Professionals in the RSA. The effectiveness and robustness of the TPB in predicting entrepreneurial intention has been demonstrated by many scholars (e.g. (Engle, et al., 2010), (Gelderen, et al., 2008), (Kautonen, Gelderen, & Tornikoski, 2013), & (Malebana & Swanepoel, 2015)) who proved strong correlations between all three antecedents of entrepreneurial intention (i.e. attitudes towards the behaviour, perceived behavioural control and subjective norms).

Results from the study (see Table 5.23) indicated some significant negative and positive correlations amongst entrepreneurial intention and its antecedents. According to the results, entrepreneurial intention did not have a positive correlation with personal attitude or subjective norms. The results indicated a weak positive correlation between entrepreneurial intention and perceived behavioural control (r=0.251, Sig=0.048). A moderate positive correlation was also observed between perceived behavioural control and subjective norms (r=0.410, Sig=0.001). These findings were consistent with the results presented in Section 5.5.3, which indicated that perceived behavioural control could be considered a predictor of entrepreneurial intention. These findings were not in line with those of previous studies which were able to determine positive and statistically significant correlations between entrepreneurial intention and all of its three antecedents (e.g. (Engle, et al., 2010), (Gelderen, et al., 2008), (Kautonen, Gelderen, & Tornikoski, 2013), (Linan & Chen, 2009), (Malebana & Swanepoel, 2015)).

Another key finding of this aspect of the study, presented in Table 5.8, was that the majority of the respondents (75.7%) had the intent to be self-employed prior to choosing self-employment i.e. they had entrepreneurial intention. The remaining 24.3 per cent of

the respondents did not have entrepreneurial intention. In conclusion, based on these results, Ajzen's Theory of Planned Behaviour could be utilised to predict entrepreneurial intention amongst Built Environment Professionals in the RSA and entrepreneurial intention could be considered a precursor for choosing self-employment by Built Environment professionals.

7.2.2 JOB-SATISFACTION VS. PRE ENTREPRENEURIAL JOB- DISSATISFACTION

The second part of the study sought to investigate the prevalence of Push motivation and Pull motivation factors on total early-stage entrepreneurial activity in the Built Environment sector.

Pull motivation factors were measured in the form of job-satisfaction, a non-pecuniary aspect that was often advocated as a major driving force in choosing self-employment (Guerra & Patuelli, 2016). In this regard, the study sought to investigate if the respondents considered job-satisfaction as a key deciding factor when choosing self-employment. According to the findings of this study, presented in Table 5.21, and based on the statistical means of the different constructs, the majority of the respondents (79%) felt that economic opportunity was important to consider when deciding on a future career path, 85 per cent of the respondents felt the same about autonomy, 82 per cent felt that it was important to participate in the whole process and 89 per cent felt that challenges were important. The constructs; self-realisation and authority did not attract statistically consistent responses. It could therefore be concluded within reason that the majority of the respondents regarded job-satisfaction as an important factor to consider when deciding on a new career path.

Push motivation factors in the form of pre-entrepreneurial job-dissatisfaction were investigated. One of the most frequently reported conditions accompanying the decision to become self-employed was that of dissatisfaction with a previous job (Brockhaus, 1980; Guerra & Patuelli, 2016). In this regard, the study sought to determine if the respondents experienced job-dissatisfaction at their last place of employment prior to choosing self-employment. According to the findings of this study, presented in Section 4.3.5 and based on the statistical means presented in Table 5.22, the majority of the respondents (64%) did not experience pre-entrepreneurial job-dissatisfaction prior to choosing self-employment. This result was also confirmed by the results from the single measure item where 66 per cent of the respondents confirmed that they did not experience pre-entrepreneurial job-dissatisfaction.

7.3 IMPLICATIONS OF RESEARCH FINDINGS

The study required the measurement of the prevalence of Push motivation factors in the form of Pre-entrepreneurial job-dissatisfaction and Pull motivation factors in the form of job-satisfaction on total early-stage entrepreneurial activity in the Built Environment sector. It also required the confirmation of Ajzen's Theory of Planned Behaviour as a suitable model for predicting entrepreneurial intentions within the Built Environment sector and the measurement thereof.

ENTREPRENEURS/BUSINESS OWNERS

The study determined that the majority of the respondents (64%) did not experience pre-entrepreneurial job-dissatisfaction prior to choosing self-employment (see Section 4.3.5). Current employers of aspiring entrepreneurs played a significant role in promoting Push motivating factors, particularly with regard to current job-dissatisfaction (see Section 2.5). This result implied that the majority of the current employers created a positive environment within the work place which resulted in the majority of the employees being generally satisfied with their work environment.

ENTREPRENEURIAL EDUCATION AND TRAINING:

Entrepreneurship researchers have carried out numerous studies aimed at determining the role of Entrepreneurship Education and Training (EET) on Entrepreneurial Intentions (EI), and have, in most cases, established a positive correlation between EET and EI. Studies conducted amongst scientists and engineers show that EET raises the overall intention to start a business (Entrepreneurial Intentions), and that inspiration (to aspire to be self-employed) is the most influential benefit derived by scholars from entrepreneurship programmes (Soutaris, Zerbinati, & Al-Laham, 2007). Findings from this study determined weak correlations between Entrepreneurial Intentions and its antecedents amongst Built Environment professionals and the need thereof for improved Entrepreneurial Intentions within the Built Environment sector. Based on previous research on the effect of EET on EI, improvement in Entrepreneurial Intentions could be achieved through improved EET. Consequently, in order to create sustainable economic growth through increased entrepreneurship, public policy should be designed to encourage training (Castano, Mendez, & Galindo, 2016).

GOVERNMENT AND SMALL BUSINESS SUPPORT ORGANIZATIONS

Entrepreneurial activity was sector driven and supported by a policy framework aimed at creating an environment that was friendly to the drivers of economic growth (e.g. SMMEs). The study determined that Pull motivation factors, measured in the form of job-

satisfaction, were more prevalent than Push motivation factors, measured in the form of pre-entrepreneurial job-dissatisfaction. Pull motivation factors are impacted positively by properly designed public policy (see Section 2.4). Public policy could play a significant role in encouraging or discouraging entrepreneurial activity, e.g. through tax changes and expenditure policies (Castano, Mendez, & Galindo, 2016). Properly designed public policy could promote self-employment by creating the right environment to encourage individuals to form start-ups, by amongst other things, promoting business opportunities (Castano, Mendez, & Galindo, 2016).

7.4 LIMITATIONS OF THE STUDY

The study targeted Built Environmental Professionals who were entrepreneurs, and who were either running their own professional practices as founding members or had purchased executive shares within a practice and were involved in its day-to-day running. The aim was to gain insight into the prevalence of Push and Pull motivation factors on total early-stage entrepreneurial activity in the Built Environment sector. The intention was to generalise the key findings into the greater population and subsequently utilise these findings to inform the relevant policy decisions at organisational and even possibly national level.

A key limitation to generalising the findings to the greater population was the sample size. The study targeted a total of 130 responses from the sample. A total of 250 questionnaires were distributed and feedback was received from a total of 80 respondents, with a completion rate of 82 per cent. The total number of usable responses was ultimately 63, which was much less than the targeted amount, and which in turn compromised the generalisability of the findings into the greater population. Another limitation relating to the sample was that it was not representative of the entire spectrum of Built Environment Professionals. The sample comprised mostly of engineers, a few architects and a few quantity surveyors. Other members of the Built Environment professions were not represented.

7.5 SUGGESTIONS FOR FUTURE RESEARCH

The outcomes of this study are fundamental in addressing the challenge of limited TEA within the Professional Services sector. The limitations of the study presented in section 7.4, in particular not being able to generalise the findings into the greater population, present an opportunity for future research. This study presents an opportunity to

reconstitute the research to focus on entrepreneurial intention and its antecedents. This study could not establish correlations between entrepreneurial intention and the antecedents of personal attitude and social norms. This could be attributed in part to the limited number of responses. The next phase of the study could focus on increasing and diversifying the number of respondents within the Built Environment sector.

7.6 CONCLUSION

The study sought to gain insights into Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, by studying the conditions which have a direct influence in the decision behind choosing self-employment, with emphasis on the role of Entrepreneurial Intention and also the prevalence of Push and Pull motivation factors.

The study has determined the following in regard to the Built Environment sector;

- Ajzen's Theory of Planned Behaviour could be utilised to predict entrepreneurial intention.
- Entrepreneurial intention could be considered a precursor for choosing self-employment for Built Environment Professionals.
- Pull motivation factors, measured in the form of job-satisfaction, were more prevalent than Push motivation factors, measured in the form of pre-entrepreneurial job-dissatisfaction, when these Built Environment Professionals made the decision to become self-employed.

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APPENDIX A

COPYRIGHT DECLARATION FORM

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Department:	GIBS		
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Supervisor email:	Thembie.ntshakala@gmail.com		

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APPENDIX B

ETHICAL CLEARANCE LETTER

Rubric Detail

*A rubric lists grading criteria that instructors use to evaluate student work. Your instructor linked a rubric to this item and made it available to you. Select **Grid View** or **List View** to change the rubric's layout.*

Name: **Ethics rubric**

Exit

Grid View | List View

	Not approved	Conditional approval	Approved
Feedback	**0** (0%) Further to your application for Ethical Clearance, I regret to advise that your submission was unsuccessful. The Ethical Clearance Committee cited the following reasons for not approving your application:	**1** (50%) Please be advised that your application for Ethical Clearance has been approved subject to the following conditions. Once you have made this minor amendment and submitted the changes to the Research Coordinator, you will be allowed to continue collecting your data.	**2** (100%) Please be advised that your application for Ethical Clearance has been approved. You are therefore allowed to continue collecting your data. We wish you everything of the best for the rest of the project.

Raw Total: 2.00 (of 2.0)

Name:**Ethics rubric**

Exit

APPENDIX C

CERTIFICATION FOR DATA ANALYSIS SUPPORT

21. APPENDIX 5 Certification of Data Analysis Support

(Additional assistance retained or not - to be completed by students who used Quantitative or Mixed methodology)

Please note that failure to comply and report on this honestly will result in disciplinary action

I hereby certify that (please indicate which statement applies):

- *I **did not receive** any additional statistical assistance (i.e. did not retain the services of a statistician) to run the data analysis for my research report:* .....
- *I **retained the services of a statistician** in running the data analysis for my research report:* ....AFFIRMATIVE.....

If a statistician was retained – ***please supply contact name and details of said statistician:***

NAME: ..CHRISTIAN STORM.....

EMAIL ADDRESS: ....CHRIS.STR@HOTMAIL.COM.....

CONTACT NUMBER: ....079 495 8067.....

I hereby declare that all *statistical interpretations/ analysis and write-up of the results for* **my study was completed by myself without outside assistance**

Name of student: ..Dumsani C. Khoza.....

Signature: .....

Student number: 16391439.....

Student email address:
.....16391439@mylife.co.za.....

APPENDIX D

TURNITIN REPORT

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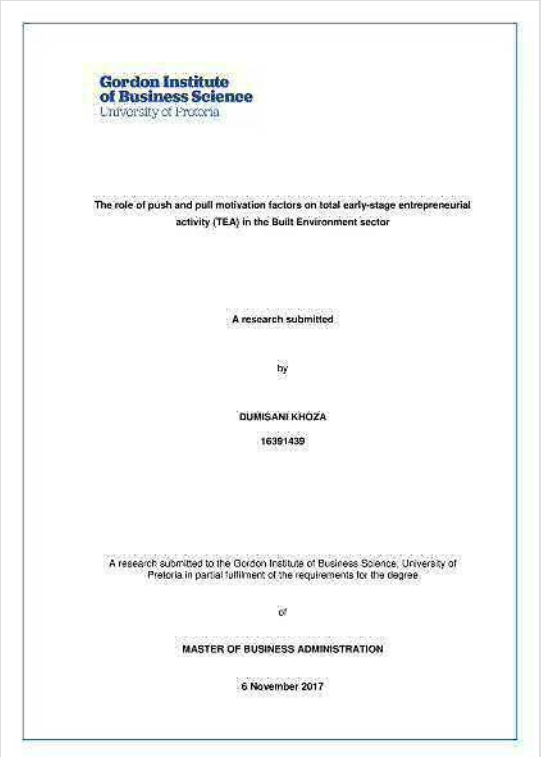

Gordon Institute of Business Science
University of Pretoria

The role of push and pull motivation factors on total early-stage entrepreneurial activity (TEA) in the Built Environment sector

A research submitted

by

DUMISANI KHOZA

16391439

A research 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

6 November 2017

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APPENDIX E

DATA COLLECTION MEASURES – COPY OF QUESTIONNAIRE

Gordon Institute of Business Science
University of Pretoria

THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

1. PRO-FORMA CONSENT LETTER

I am conducting a research into the role of push and pull factors on Total Early-Stage Entrepreneurial Activity (TEA) of Built Environment Professionals. The study seeks to gain insights by studying the conditions which have a direct influence in the decision for choosing self-employment. The study focuses on motivating factors, with emphasis on Push and Pull factors.

The primary aims of the study are as follows:

1. To identify the role of Entrepreneurial Intention (EI) as a precursor for choosing self-employment in the Built Environment sector; and

2. To identify the significance of motivation factors in Total Early-Stage Entrepreneurial Activity (TEA) in the Built Environment sector, with emphasis on Push and Pull motivating factors;

It is expected that completing the questionnaire will take no more than 15 minutes of your time. Participation in the survey is voluntary and you can withdraw at any time without penalty. Furthermore all data will be reported anonymously.

If you have any concerns, please contact me on the details indicated below:

Researcher Name: **Dumisani Khoza (Pr. Eng.)**

Email: **16391439@mygibs.co.za**

Phone: **+2776 165 8394**

Gordon Institute of Business Science
University of Pretoria

THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

2. STRUCTURE OF QUESTIONNAIRE

The questionnaire is structured to answer the following research questions:

Q1: Is Entrepreneurial Intention (EI) a precursor for choosing entrepreneurship?

Q2: Does pre-entrepreneurial job-dissatisfaction push people into entrepreneurship?

Q3: Does the lure of job-satisfaction pull people into entrepreneurship?

The questionnaire is divided into five (5) sections, as follows:

SECTION A: Socio-Demographic variables

SECTION B: Company variables

SECTION C: Measurement of Entrepreneurial Intension (EI)

SECTION D: Measurement of pre-entrepreneurial job-dissatisfaction

SECTION E: Measurement of job-satisfaction as a reason for choosing self-employment

Gordon Institute of Business Science
University of Pretoria

THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

3. SECTION A: SOCIO-DEMOGRAPHIC VARIABLES

This section measures basic demographic information

Please select the most appropriate

1. Gender

- ○ Male
- ○ Female

2. Age Group

- ○ Less than 30
- ○ Between 30 and 40
- ○ Between 40 and 50
- ○ 50 and over

3. Please indicate your highest level of qualification

- ○ Post Graduate Degree
- ○ Degree
- ○ Diploma
- ○ Matric
- ○ Other (please specify)

4. Please indicate your professional registration status

- [ ] Professional Engineer (Pr.Eng.)
- [ ] Professional Engineering Technologist (Pr.Tech.Eng.)
- [ ] Professional Quantity Surveyor (Pr.Qs.)
- [ ] Professional Architect (Pr.Arch.)
- [ ] Professional Natural Scientist (Pr.Sci.Nat.)
- [ ] Project Management Professional (PMP)
- [ ] Professional Construction Manager (Pr.CPM)

Other (please specify)

5. What is your current position in the business?

- ( ) Owner/CEO/Managing Director
- ( ) Director (Other. e.g. Technical, Operations etc.)
- ( ) Senior Manager
- ( ) Other (please specify)

6. Are you a...?

- ( ) Founding Member
- ( ) Partner
- ( ) Associate

Other (please specify)

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THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

4. SECTION B: COMPANY VARIABLES

This section checks if your business fits the criteria for the survey

7. Year business was registered

8. Does your business hold a valid membership with CESA?

- Yes
- No

9. Does your business qualify as Small Medium Enterprise (SME) as per DTI definition?

- YES
- NO

10. Approximate Annual Turnover

- Small firm (annual turnover equal to or less than R11.5 million Rand)
- Medium firm (annual turnover exceeds R11.5 million but not R35 million Rand)
- Large firm (annual turnover exceeds R35 million Rand)

11. Select your firm's specialization

- [ ] Agricultural
- [ ] Chemical
- [ ] Civil
- [ ] Electrical
- [ ] Environmental
- [ ] Geotechnical
- [ ] Mechanical
- [ ] Structural
- [ ] Architecture
- [ ] Project Management
- [ ] Quantity Surveying

Other (please specify)

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THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

5. SECTION C: MEASUREMENT OF ENTREPRENEURIAL INTENSION (EI)

This section measures Entrepreneurial Intension (EI) using a structured questionnaire designed and validated by Linan and Chen (2009).

PLEASE ANSWER THE FOLLOWING QUESTIONS FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE I.E. BEFORE YOU CHOSE SELF-EMPLOYMENT.

PERSONAL ATTITUDE:

Indicate **your level of agreement** with the following sentences from 1 (strongly disagree) to 7 (strongly agree).

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

12. Being an entrepreneur implied more advantages than disadvantages to me.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree Somewhat
- ○ Undecided
- ○ Agree Somewhat
- ○ Agree
- ○ Strongly Agree

13. A career as entrepreneur was attractive for me.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

14. If I had the opportunity and resources, I'd have liked to start a firm.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

15. Being an entrepreneur would entail great satisfactions for me.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

16. Among various options, I would rather be an entrepreneur.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

SUBJECTIVE NORMS:

If you decided to create a firm,**would people in your close environment approve of that decision?** Indicate from 1 (total disapproval) to 7 (total approval).

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

17. Your close family

- Total Disapproval
- Disapproval
- Disapproval Somewhat
- Undecided
- Approval Somewhat
- Approval
- Total Approval

18. Your Friends

- Total Disapproval
- Disapproval
- Disapproval Somewhat
- Undecided
- Approval Somewhat
- Approval
- Total Approval

19. Your Colleagues

- Total Disapproval
- Disapproval
- Disapproval Somewhat
- Undecided
- Approval Somewhat
- Approval
- Total Approval

PERCIEVED BEHAVIOURAL CONTROL:

To what extent do you agree with the following statements regarding**your entrepreneurial capacity?** Value them from 1 (strongly disagree) to 7 (strongly agree).

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

20. To start a firm and keep it working would be easy for me.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

21. I am prepared to start a viable firm.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Agree Strongly

22. I can control the creation process of a new firm.

- Disagree Strongly
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Agree Strongly

23. I know the necessary practical details to start a firm.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

24. I know how to develop an entrepreneurial project.

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Agree Strongly

25. If I tried to start a firm, I would have a high probability of succeeding.

- Strongly Disagree
- Diagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

ENTREPRENEURIAL INTENTIONS (EI)

Indicate your **level of agreement** with the following statements from 1 (strongly disagree) to 7 (strongly agree).

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

26. I am ready to do anything to be an entrepreneur

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

27. My professional goal is to become an entrepreneur

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

28. I will make every effort to start and run my own firm

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

29. I am determined to create a firm in the future

- Strongly Disagree
- Disagree
- Diagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

30. I have very seriously thought of starting a firm

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

31. I have the firm intention to start a firm some day

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

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THE ROLE OF PUSH AND PULL FACTORS ON TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) OF BUILT ENVIRONMENT PROFESSIONALS IN THE REPUBLIC OF SOUTH AFRICA

6. SECTION D: MEASUREMENT OF PRE-ENTREPRENEURIAL JOB DISSATISFACTION I.E. PUSH FACTORS

This section measures Pre-entrepreneurial Job-dissatisfaction utilizing job satisfaction scales developed by Warr, Cook & Wall (1979)

The next set of questions deal with various aspects of your previous job.Please indicate how satisfied or dissatisfied you felt with each of these features of your previous place of employment. Please indicate how satisfied or dissatisfied you were with it at the time with each of these elements.

PLEASE ANSWER THE FOLLOWING QUESTIONS FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE I.E. BEFORE YOU CHOSE SELF-EMPLOYMENT.

32. The physical work conditions.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Satisfied
- Extremely Satisfied

33. The freedom to choose your own method of working.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

34. Your fellow workers.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Very Satisfied
- Extremely Satisfied

35. The recognition you received for good work.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

36. Your immediate boss.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

37. The amount of responsibility you were given.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

38. Your rate of pay.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

39. Your opportunity to use your abilities.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

40. Industrial relations between management and workers in your firm.

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

41. Your chance of promotion

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

42. The way your firm was managed

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

43. The attention paid to suggestions you made

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

44. Your hours of work

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

45. The amount of variety in your job

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

46. Your job security

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

47. Now, taking everything into consideration, how did you feel about your job as a whole?

- Extremely Dissatisfied
- Very Dissatisfied
- Moderately Dissatisfied
- Not Sure
- Moderately Satisfied
- Very Satisfied
- Extremely Satisfied

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7. SECTION E: MEASUREMENT OF JOB SATISFACTION AS A REASON FOR CHOOSING SELF-EMPLOYMENT – PULL FACTOR

This section measures job-satisfaction as a reason for choosing self-employment in terms of factors identified by Kolvereid (1996a).

PLEASE ANSWER THE FOLLOWING QUESTIONS FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE AND CONSIDERING CHOOSING SELF-EMPLOYMENT.

ECONOMIC OPPORTUNITY:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path?**

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

48. Economic Opportunity

- Strongly Disagree
- Disagree
- Diagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

49. To receive compensation based on merit

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

50. To keep a large proportion of the results/reward

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

CHALLENGE:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path?**

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

51. To have a challenging job

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

52. To have an exciting job

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

53. To have an interesting job

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Not Decided
- Agree Somewhat
- Agree
- Strongly Agree

54. To have a motivating job

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Agree Strongly

AUTONOMY:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path**?

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

55. Freedom

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

56. Independence

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

57. To be your own boss

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Agree Strongly

58. Be able to choose your own work tasks

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

AUTHORITY:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path?**

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

59. I have power to make decisions

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

60. Have authority

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

SELF-REALIZATION:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path?**

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

61. Self-realisation

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

62. Realise ones dreams

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

63. To create something

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

64. To take advantage of your creative needs

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

PARTICIPATE IN THE WHOLE PROCESS:

To what extent do you agree or disagree that the following factors**are important to consider when you are to decide your future career path**?

[ANSWER FROM A VIEW OF WHEN YOU WERE STILL AN EMPLOYEE]

65. To participate in the whole process

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

66. To follow work tasks from A-Z

- Strongly Disagree
- Disagree
- Disagree Somewhat
- Undecided
- Agree Somewhat
- Agree
- Strongly Agree

APPENDIX F

STUDENT AND SUPERVISOR AGREEMENT

The GIBS MBA Student Regulations

The GIBS MBA Integrative Business Research Regulations – i.e. Green Pages

Any grievances, personal problems or disagreements that may arise between a postgraduate candidate and the supervisor must be referred to the GIBS MBA Research Management team, care of the Research Officer, Jennifer Theodoridis – theodoridisj@gibs.co.za (as well as Robyn Green – greenr@gibs.co.za)

Name of student: DUMISANI KHOZA
.....

Student number: 16391439
.....

Student email address: 16391439@mygibs.co.za/dkhoza@maes.co.za
.....

Name of Supervisor: Dr. Thembekile Ntshakala
.....

Supervisor email address: thembie.ntshakaka@gmail.com
.....

Agreement undertaken by THE STUDENT

Dumisani C. KHOZA (insert name)

accepts and undertakes the following roles and responsibilities:

1. Abiding by the relevant rules and regulations of the Gordon Institute of Business Science.
2. Ensure that all interactions with the Supervisor – either written or in person, remains cordial at all times.
3. Working independently under the guidance of the supervisor, and ensuring that she or he stays abreast of the latest developments in the field of study.
4. Agreeing with the supervisor, and abiding by, a time schedule which outlines the expected completion dates of various stages of the research work, i.e. prepare and submit a detailed project plan (See Supervisor section, #5 below).
5. Attending pre-scheduled meetings with the supervisor, and being adequately prepared for these consultation sessions (See Supervisor section, #6 below).
6. Submitting written work at times agreed upon by the student and the supervisor.
7. Taking account of the feedback provided by the supervisor before subsequent submission of written work.
8. Undertaking to submit the proposal and final report within the prescribed time for the completion of the degree and to plan accordingly.
9. Accepting responsibility for the overall coherent structure of the final dissertation or thesis and, as far as possible, submitting written work that is free of spelling mistakes, grammatical errors and incorrect punctuation.
10. Informing the supervisor of any absence or circumstances that may affect the research progress and time line.

Agreement undertaken by THE SUPERVISOR

Thembie Ntsualela. ..... (insert name)

accepts and undertakes the following roles and responsibilities:

1. Abiding by the relevant rules and regulations of the University.
2. Ensure that all interactions with the Student – either written or in person, remains cordial at all times.
3. Assisting the student in building knowledge and research skills in the specific area of postgraduate study and relevant to the level of the degree.
4. Ensuring that the proposed research project is feasible, of an appropriate level for the degree under consideration, and that the necessary resources and facilities will be available to enable the student to complete the research timeously.
5. Providing information on the conditions to be met in order to achieve satisfactory progress/performance and assisting with the construction of a written time schedule which outlines the expected completion dates of various stages of the research work.
6. Being accessible to the student by attending meetings in line with a schedule agreed upon in advance by the supervisor and the student, and being prepared for the meetings.
7. Implementing an arrangement for student supervision in cases where the supervisor is away from the University e.g. sick leave, sabbatical leave, or leaves the employ of the University, and communicating these arrangements to the student timeously.
8. Accepting submission of written work at intervals agreed on by the student and supervisor, providing constructive comment and criticism within a time frame jointly agreed on at the start of the research, and informing the student, in writing, of any inadequacy relating to progress or work, in relation to the expectations previously agreed on by the student and supervisor.
9. Assisting the student with the production of the dissertation or thesis, providing guidance on technical aspects of writing including discipline-specific requirements.
10. Meet all assessment and pre-arranged feedback deadlines.

THE STUDENT AND THE SUPERVISOR:

Confirm that we have read and understood this Memorandum of Agreement and agree to accept its content for the duration of the period of study in respect of the degree as specified below.

Name of student: Dumisani C. Khoza

Student number: 16391439

Signed at Johannesburg on 16/05/2017 (date)

Student's signature

Name of supervisor: Thembie Ntsukalo

Supervisor's signature:

Signed at Midrand on 16/05/2017 (date)