

The impact of social entrepreneurial antecedents on social entrepreneurial intentions of post-graduate students: the moderating role of entrepreneurial self-efficacy

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ABSTRACT

There has been a decline in South Africa's economic growth and a rise in inequality. Behind this backdrop are several escalating social challenges. These include high unemployment rates, most prevalent among young individuals, including over 7 million unemployed young graduates. This study aimed to understand how subjective norms, attitudes toward participation in a social enterprise, and perceived behavioural control influence the social entrepreneurial intention of University post-graduates. Additionally, the study examined how introducing entrepreneurial self-efficacy as a moderator impacts these relationships.

Despite the extensive literature discussions amongst scholars that have shaped the narrative around social entrepreneurial intentions, even with reference to the three antecedents of intention, there is limited understanding of how these relationships are moderated by individuals' perceptions of their ability to succeed as entrepreneurs, referred to as entrepreneurial self-efficacy. This explanatory quantitative research study was undertaken first to investigate how attitudes towards social entrepreneurship, subjective norms, and perceived behavioural control affect the social entrepreneurial intention of South African university post-graduates. In addition, a second component of the study examined the role of entrepreneurial self-efficacy in moderating these relationships.

Non-probability sampling technique was employed through an online survey questionnaire to obtain 237 responses. A multi-linear regression analysis was conducted on IBM SPSS, and the results revealed positive and significant relationships between the three antecedents of intention, attitude, subjective norms and perceived behavioural control on social entrepreneurial intention. Moreover, these relationships were strengthened by the moderating impact of entrepreneurial self-efficacy.

KEYWORDS

Social entrepreneurial intention, entrepreneurial self-efficacy, social entrepreneurship, planned behaviour, attitude, subjective norms, perceived behavioural control

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 at any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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List of abbreviations and acronyms

| | |
|--------------|---|
| AIA | Antecedents of intention: Attitude towards behaviour |
| AIPC | Antecedents of intention: Perceived behavioural control |
| AISN | Antecedents of intention: Subjective norms |
| AMOS | Analytical of Moment Structure |
| AVE | Average Variance Extracted |
| ANOVA | Analysis of Variance |
| CFA | Confirmatory factor analysis |
| CFI | Comparative Fit Index |
| CR | Composite Reliability |
| CSV | Comma-Separated Value |
| CV | Control variable |
| DV | Dependent variable |
| ESE | Entrepreneurial self-efficacy |
| IV | Independent variable |
| GFI | Goodness-of-Fit |
| RMSEA | Root Mean Square Error of Approximation |
| SEI | Social Entrepreneurial Intention |
| SPSS | Statistical Package for Social Sciences |
| TLI | Tucker Lewis Index |
| VIF | Variance Inflation Factor |

CHAPTER 1

RESEARCH PROBLEM

1.1. Introduction

This chapter provides an overview of the research problem, theoretical relevance, and business relevance as support for the reasons for conducting this research study. This chapter discusses the scholarly discussions and enhancements in the literature on social entrepreneurial intentions. It establishes the importance of this study, especially in the context of South Africa. This chapter introduces the relationship between three intention antecedents and social entrepreneurial intention and how the moderating role of entrepreneurial self-efficacy can impact this association. The fundamental constructs of this study were introduced and defined in terms of their theoretical and practical application. Furthermore, the research purpose statement outlines how intention antecedents are characterised by attitudes, perceived behavioural control, and subjective norms affect post-graduates intentions toward social entrepreneurship, even in entrepreneurial self-efficacy.

1.2. Background and rationale

South Africa is experiencing extreme levels of unemployment, with 7.6 million unemployed people (Statistics South Africa, 2021b). The unemployment rate rose to 34.9% in June 2021 compared to 29.1% in July 2019 (Statistics South Africa, 2021). This is happening on the back of soaring inequality rates, evidenced by the highest Gini coefficient of 63% in the world, with most unemployment affecting the youth between the ages of 15-34 years (Statistics South Africa, 2021a; The World Bank, 2022). The unofficial unemployment rate within this group rose from 32.6% to 46.2% in quarter one of 2021, indicating that this is the most vulnerable group within the labour market (Statistics South Africa, 2021a). Moreover, of the 7.6 million unemployed people in South Africa, 9.9% were university graduates (Statistics South Africa, 2021b). This could result in more of the country's university graduates forming part of the discouraging work-seekers statistics, which also increased by 6.9% (Statistics South Africa, 2021b).

To circumvent these challenges, studies have indicated the necessity for both developed and developing countries to prioritise entrepreneurship to produce higher economic growth (Austin et al., 2006; Audretsch, 2018; Musara et al., 2020; Sergi et al., 2019). Therefore, a country like South Africa would benefit from entrepreneurship. However, more social entrepreneurship is required to solve societies' significant and daunting challenges and cater to the marginalised within the country. Social entrepreneurship has been shown to offer an innovative solution to improve people's lives (Gupta et al., 2020). Social entrepreneurial intention is an ambition or desire to start a new social enterprise in the future (Austin et al., 2006; Santos & Liguori, 2020). It is often the most accurate predictor of actual behaviour (Tan et al., 2020). To understand whether individuals desire to establish a social enterprise, one needs to determine their social entrepreneurial intention because individuals adopt an intention to undertake various behaviours (Ajzen, 1991). Attitudes toward behaviour, subjective norms, and perceived behavioural control may be utilised to effectively anticipate intentions to engage in multiple planned behaviours (Ajzen, 1991). In recent years, the concept has gained traction due to the dynamic increase in societal problems being confronted. These include environmental degradation, poverty, climate change, and unemployment, which might have been neglected before (Rambe & Ndofirepi, 2021; Gupta et al., 2020).

Entrepreneurial self-efficacy is another essential component that has been shown to impact an individual's choice to establish a business. It can be understood as one's self-confidence in one's capacity to accomplish activities and responsibilities that lead to entrepreneurial achievements, including initiating an enterprise (Ajzen, 1991; Newman et al., 2019). The researcher intends to understand better the relationship between the intention antecedents, namely: attitudes toward social entrepreneurship, perceived behavioural control and subjective norms, on the intention to venture into a social enterprise. Secondly, the researcher will study the moderating effect of entrepreneurial self-efficacy on the relationship of the antecedents of intention and social entrepreneurial intentions.

1.3. Theoretical relevance of the study

The development of social entrepreneurship intentions in individuals has been systematic in the last few years. In the literature, social entrepreneurship has consistently been associated with promoting new and creative solutions with social value (Dees, 2001; Peredo & McLean, 2006; Rambe & Ndofirepi, 2021; Tan et al., 2020). Conversely, some highlighted that the focus of social entrepreneurship has been on enhancing existing social activities and introducing new ones with social merit (Mair & Martí, 2006). Regardless of the varying perspectives and tactics through which entrepreneurship implements social innovation, entrepreneurship requires visionaries driven by the challenge of addressing poverty reduction and social deprivation, which are examples of social problems (Rambe & Ndofirepi, 2021).

A study to identify what makes a social entrepreneur different from traditional entrepreneurs discovered that social entrepreneurs are enthusiastic and take risks (Tiwari et al., 2017b). However, the origins of these characteristics were not determined.

Social entrepreneurial intentions reveal an individual's determination to become involved with a social enterprise. Understanding the antecedents and consequences of social entrepreneurial intention is crucial to examine the intentions to become a social entrepreneur (Tan et al., 2021). With that said, there have been some challenges associated with social entrepreneurial intention. The central contention emphasised by scholars is that majority of the work conducted on the intention towards social entrepreneurship research is derived from entrepreneurial intention research, which may lead to less rigorous research studies (Mair & Martí, 2006; Rambe & Ndofirepi, 2021; Tan et al., 2020).

Perception desirability and feasibility informed the first proposed model for the social entrepreneurial intention. Of which social support significantly influence perceptions of feasibility (Rambe & Ndofirepi, 2021). On the other hand, Vansandt et al. (2009) presented three significant drivers that might increase the success of any social enterprise, namely, compelling logic, enhanced legitimacy, and information technology. In addition, they suggested that these three triggers could be used to predict social entrepreneurial intentions. However, several studies have found that the theory of

planned behaviour, which describes behaviour according to objective, action concerned, context, and frame, is better suited for assessing social entrepreneurial intention (Forster & Grichnik, 2013; Hossain et al., 2021; Igwe et al., 2020; Ip et al., 2018; Rambe & Ndofirepi, 2021; Tan et al., 2020).

Shepherd (2015) stated that social entrepreneurship would only develop and expand if research in the field is theoretically driven. According to the planned behaviour theory, three types of considerations guide the formation of intentions. Beliefs form an attitude toward a behaviour about the likely consequences and experiences that will result from a particular behaviour (behavioural beliefs). Secondly, beliefs about expected behaviour and expectations of significant social referents (normative beliefs. Social pressure is a subjective norm that is created by an impression of social pressure to engage in or refrain from certain behaviours. Beliefs about what facilitates or inhibits performance, also called controlling beliefs. This, therefore, results in an impression of behavioural control or an overall sense of self-efficacy if the Planned Behaviour model or personal characteristics influence behaviour relatively indirectly through subjective norms, attitudes, and perceived behavioural control (Ajzen, 1993).

However, the planned behaviour theory mainly addresses the immediate antecedents of intention: attitude towards a behaviour, subjective norms and perceived behavioural control (Ajzen, 1991). Among the many features that make this planned behaviour theory appealing is that it can be adjusted and customised to fit the unique research topic (Tiwari et al., 2017b).

Immerse research has been conducted on the contribution of entrepreneurial self-efficacy to overall entrepreneurial intention (Chen et al., 1998; Doanh & Bernat, 2019; Tsai et al., 2014). However, all these studies investigated the immediate influence of entrepreneurial self-efficacy on entrepreneurial intention. On the other hand, Neneh (2022) investigated the influence of entrepreneurial self-efficacy but only as a mediator between entrepreneurial passion and entrepreneurial intention, and so did To et al. (2020) when investigating the influence of perceived situational fit as drivers of motivational outcomes in the social entrepreneurship setting. Igwe et al. (2020) examined the moderating effect of entrepreneurial intention.

Other studies have also looked into the moderator contribution of entrepreneurial self-efficacy on the relationship between environmental values and the willingness to pursue environmentally harmful ventures (Newman et al., 2019). However, on the extensive research conducted, there has yet to be a study which contributes to the understanding of the moderation of entrepreneurial self-efficacy on the effect of dimensions of attitude towards behaviour, perceived behavioural control and subjective norms on social entrepreneurial intention. Therefore, there is a need to be more on the role of self-efficacy, especially as a moderator. In addition to using the antecedents of intention to gain knowledge on social entrepreneurial intention, entrepreneurial self-efficacy may be used to broaden one's understanding of the overall concept of social entrepreneurship (To et al., 2020). The researchers hope to construct or refine a conceptual model that illustrates the relationship between the theory of planned behaviour's primary elements and intentions towards being a social entrepreneur, which leads to behaviour. However, the effects of entrepreneurial self-efficacy on this relationship, particularly as a moderator, still need to be discovered.

1.4. Business relevance of the study

For decades, entrepreneurship has been recognised as a significant driver of economic growth (Kruse et al., 2020). Waddock & Post (1991) stated that social entrepreneurship is a concept which combines financial value creation with helping socially disadvantaged individuals in society. South Africa, for example, faced with many socio-economic issues like increased poverty, violent crimes, level of unemployment declining economic growth, economic growth becomes paramount. The future economic development of any country mainly lies with students. Furthermore, it has been recognised that many students worldwide are increasingly considering general entrepreneurship as a career choice (Global entrepreneurship monitor South Africa, 2022; Trivedi, 2017; Meoli et al., 2020).

Moreover, social entrepreneurship approaches from the corporate world are becoming more popular. Through the formation and direction of a business, social entrepreneurs may create social change (Trivedi, 2017). However, it should be stressed that social entrepreneurship attempts to provide social value or address social challenges by presenting creative solutions that encourage financial benefits. That is the exact and

core point of social entrepreneurship, and due to its focus on social issues, social entrepreneurship is distinguished from other types of entrepreneurship "the triple bottom line (social, economic, and environmental). Social entrepreneurship has long been an issue that is tied to businesses, societies, and political science (Robinson, 2006). It is also an issue that is piquing the interest of societies daily.

The growth of social entrepreneurship is an attractive prospect for a country's development; however, the current economic growth rate is relatively slow. Individuals' ideas and interests must be aligned for social entrepreneurship and entrepreneurship to grow (Tiwari et al., 2017b). To encourage and support social enterprise, careful examination and comprehension of the elements that lead individuals to establish or participate in social enterprise processes (Tiwari et al., 2017b). The study intends to give insight into whether post-graduate students intend to start social enterprises once they get their qualifications. Their views towards entrepreneurship will determine this; meaning their subjective norms, perceived behavioural control, and whether they have sufficient self-efficacy or confidence in their entrepreneurial ability (Hossain et al., 2021).

Furthermore, the belief in one's competence to carry out entrepreneurial duties is entrepreneurial self-efficacy (Bandura, 1977; Chen, Greene, & Crick, 1998). Degrees of entrepreneurial self-efficacy boost social entrepreneurial intention, resulting in more students exploring entrepreneurship's many prospects that give social benefits and other uses. Understanding how entrepreneurial self-efficacy influences social entrepreneurial intention and self-awareness will enable post-graduates to explore social entrepreneurship as a possible career option. It has been discovered that entrepreneurial self-efficacy is critical in reducing entrepreneurial withdrawal and discouragement due to failure experiences and self-debilitating consequences (Bandura, 1982).

Conversely, whenever confidence decreases and does not improve over a prolonged period of time, the more necessary it is to cultivate an enthusiastic attitude. This may be accomplished through remembering of prior successes and envisioning future successes (Gielnik et al., 2019). By understanding that, entrepreneurs are able to manage episodes of low self-efficacy constructively rather than giving up when their confidence is low due to variability in self-efficacy (Gielnik et al., 2019).

1.5. Purpose statement

This study investigates how antecedents, attitudes, subjective norms and perceived behavioural control, affect post-graduate intentions toward social entrepreneurship. This study intends to understand better the connection between the antecedents and intentions towards social entrepreneurship, even when entrepreneurial self-efficacy is moderating the relationship.

1.6. Significance of the study

First, contributing to the existing literature, this study on social entrepreneurial intention as it describes the relationship between the antecedents and their intents towards social entrepreneurship. As a second aspect of the research study, it examines the role of entrepreneurial self-efficacy as a moderator of the relationship between antecedents and social entrepreneurial intentions. Ultimately, the study aims to provide post-graduates with insights that can be used to formulate strategies to venture into the social entrepreneurial space while considering their entrepreneurial self-efficacy.

1.7. Report outline

In the subsequent sections of this document, the following outline is followed: Chapter 2 offers a review of the literature pertaining to social entrepreneurial intention and the antecedents of intention according to planned behaviour theory. Next, Chapter 3 delivers the research question and summarises the study's hypotheses as derived and supported by the literature. An overview of the research methodology is provided in Chapter 4, as is a presentation of the results of the survey questionnaire completed and analysed in Chapter 5. Moreover, Chapter 6 compares the results with those described in Chapter 2 in order to gain better perspective of the contribution of the literature position of this study. Lastly, Chapter 7 will conclude the study by providing recommendations for future work, and highlight the study's limitations.

CHAPTER 2

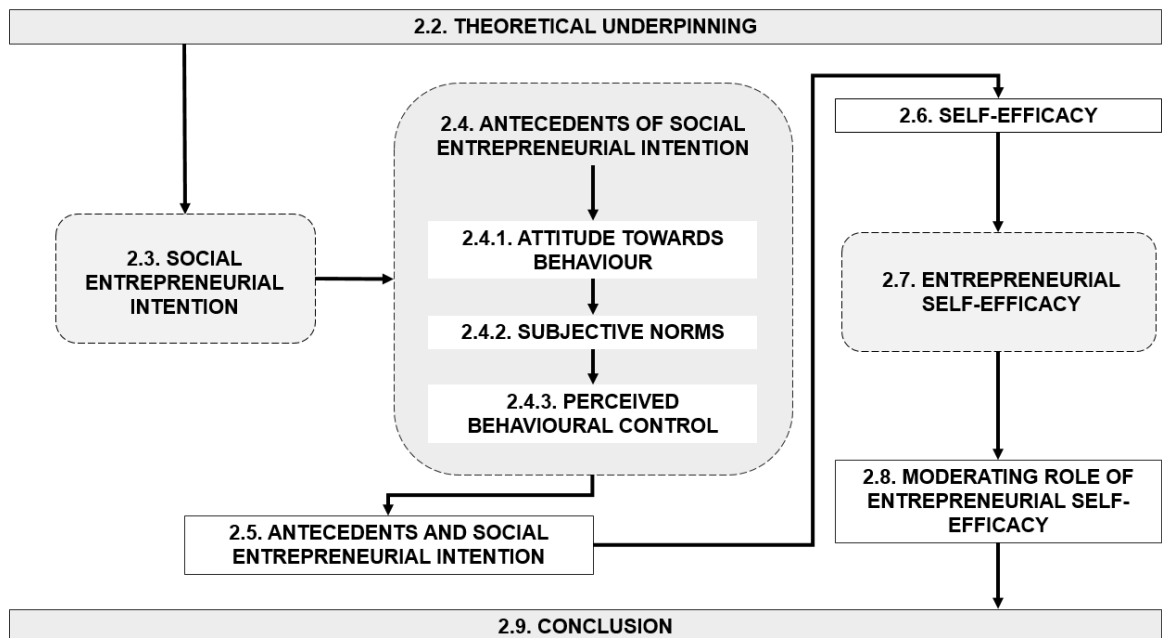
LITERATURE REVIEW

2.1. Introduction

The following sections include a thorough review of the relevant literature regarding the intention of social entrepreneurship, antecedents of intention, and entrepreneurial self-efficacy. The section begins with a discussion of the definition of entrepreneurship and then expands into social entrepreneurship and its principles. Secondly, it examines the antecedents of intention and how they are applied to social entrepreneurial intention in business and a theoretical context using the planned behaviour theory. Following that is a review of entrepreneurial self-efficacy, which moderates the relation between social entrepreneurial intention and its antecedents.

From this point onwards, the literature review intended to follow the journey map represented in **Error! Reference source not found.**

Figure 1: *Literature review journey map*



Note. Chapter 2 will follow this structure. Introducing the variables and their relevance to the study. The main variables are in section 2.3, 2.4 and 2.7.

2.2. Theoretical underpinning

A career in entrepreneurship provides several options for individuals to attain financial independence while benefiting the economy through employment, innovation, and economic development. At the same time, self-employment through social entrepreneurship provides university graduates with the option to be financially secure and contribute to the economy while also helping to address the world's numerous socio-economic challenges. As a result, it is imperative to acknowledge the influencing factors of intentions to venture into a social enterprise (Forster & Grichnik, 2013). Understanding the behavioural actions of social entrepreneurs requires knowledge of the intention and, consequently, the antecedents of that intention as derived from the planned behaviour theory (Ajzen, 1991).

An important and widely used model for predicting human social behaviour is that of Ajzen (1989). It is derived from the Theory of Reasoned Action, which includes the basic notions of attitude towards behaviour and subjective norms as the drivers of intention towards a particular behaviour (Ajzen, 1989, 1991). The theory was then expanded by including perceived behavioural control to consider situations in which non-motivational variables have a role in attitudes becoming actions (Hoong et al., 2019). Perceived Behavioural Control is thought to represent previous experience with the performance of the activity and predicted impediments to behaviour. The theory states that purposive human acts are determined by the intention of the individual to perform that act and perceived behavioural control (Lim & Weissmann, 2021). Behavioural control provides a realistic explanation for the complexity of behavioural prediction by identifying and accounting for the intention-behaviour gap.

Intentions capture the motivating elements that underlie behaviour and indicate how much effort people put in to accomplish a particular behaviour (Ajzen, 1991). Psychology was the first field to develop the theory of planned behaviour. Despite this, this theory has been extensively applied to elucidate and forecast behaviours in a wide range of behavioural settings. These include physical activity, pharmaceutical use, environmentalism, mode of transportation, and consumer behaviour, which attests to its efficacy as a framework (Ajzen & Schmidt, 2020; Lim & Weissmann, 2021; Tiwari et al., 2017). Positive attitudes and supporting subjective norms motivate people to perform

the activity. Still, this motivation causes individuals to establish an intention to participate in the behaviour only to the degree that they are confident in performing it (Ajzen & Schmidt, 2020). This explains how self-efficacy comes into play, as it motivates individuals despite not being part of the theory of planned behaviour.

2.3. Social entrepreneurial intention

During the past few years, social entrepreneurship has attracted substantial interest, primarily due to the rapid expansion of societal challenges such as pollution, poverty, climate change, and unemployment (Waddock & Post, 1991; Tan et al., 2020). There is more to social entrepreneurs than just creating social value in society; they also engage in continuous innovation, adaptation, and learning. This is because it entails an innovative and creative approach to addressing societal concerns. Among them are education, the environment, health, and human rights. The multiple societal concerns that drive social entrepreneurship have been found to require global humanitarian solutions to conflict-related problems, depletion of resources, and environmental degradation, among the many societal issues (Gupta et al., 2020; Rambe & Ndofirepi, 2021). Social entrepreneurship has a worldwide prominence as a standard that incorporates both commercial and social value creation (Mair & Martí, 2006).

According to Dees (2001), social entrepreneurship has "struck the responsive chord" because it requires social entrepreneurs to look beyond social action to create social value; and participate in continuous innovation, adaptation, and learning. It addresses societal issues in novel ways. The environment, education, human rights, and health are just a few examples (Tan et al., 2020). There have been many proposed interpretations of the social entrepreneurship concept. Dees (2001) characterised social entrepreneurs as a species in the entrepreneurial genus because the idea is more specialised than generic entrepreneurship.

However, the most prevailing was when an individual intends to generate social value by discovering and analysing various opportunities to achieve this value, leveraging innovation across multiple risk challenges and resource constraints (Austin et al., 2006). In many cases, social businesses' and non-profit orientation creates a barrier to their growth of such ventures, particularly in the context of social entrepreneurship (Chang et

al., 2021). According to Short (2009), social entrepreneurs find creative solutions to various social challenges that have previously gone undetected to produce and retain societal value. It stems from worldwide societal challenges that urgently demand the attention and support of non-profit organisations, enterprises, or government institutes (Peredo & McLean, 2006). As a result, social entrepreneurs must contribute to society and recognise that economic prosperity is intricately associated with community and environmental requirements.

Social entrepreneurship begins with promoting social concepts and identifying possibilities and solutions for protracted social development. The primary purpose of social entrepreneurship, which separates it from other kinds of entrepreneurialism, is to solve social issues through inventive solutions (Rambe & Ndofirepi, 2021). This proves there is scholarly consensus amongst the research available on the definition of social entrepreneurship. Social entrepreneurial intention has been characterised as the willingness to establish specific plans to venture or participate in a social enterprise.

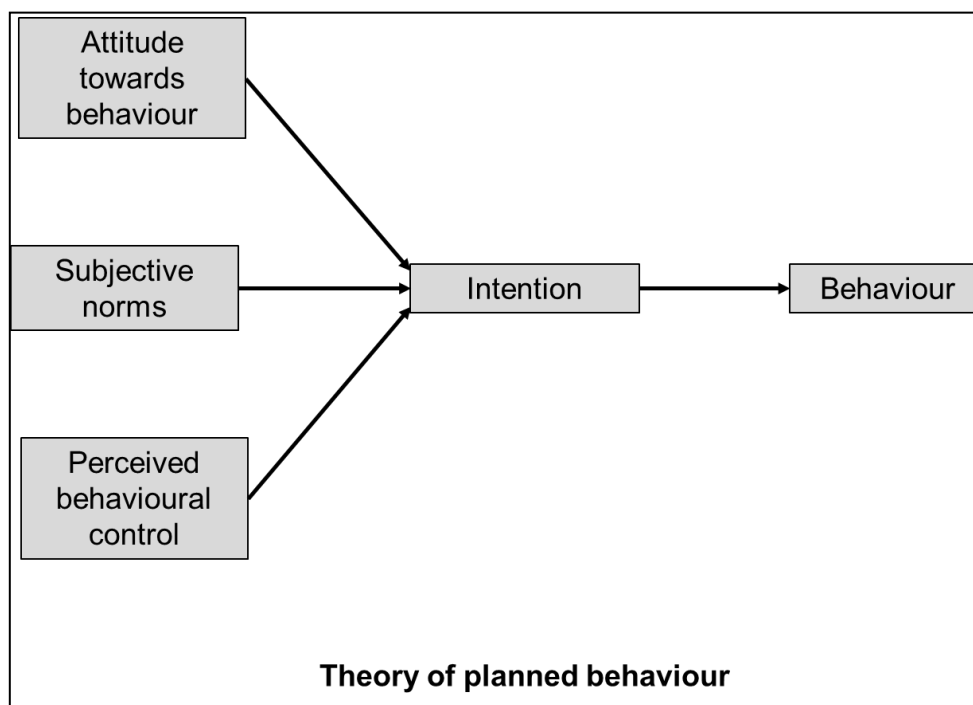
According to intention-based theories of individual behaviour, such as the planned behaviour theory, most human actions are pre-planned, and intention precedes such behaviour (Ajzen, 1991, 2020; Tan et al., 2020). Despite the extensive research devoted to explaining the emergence of entrepreneurial intention, not much is known about the antecedents of social entrepreneurship (Rambe & Ndofirepi, 2021). Therefore, research on social entrepreneurial intention has gradually increased over the past years. This is the key to determining one's intention to become a social entrepreneur. The scholarly discussion has transitioned from cases to descriptive qualitative research to empirical studies testing the strength of constructs (Tan et al., 2020). Thus, revealing the need for more quantitative research studies on the topic (Rambe & Ndofirepi, 2021; Tan et al., 2020).

2.4. Antecedents of social entrepreneurial intentions

According to the intention is the immediate antecedent of anticipating behaviours as in the theory of planned behaviour to undertake a specific behaviour (Ajzen, 1991; Ozaralli & Rivenburgh, 2016). An individual's desire to engage in a particular behaviour is intention. For instance, the choice to become a business owner and establish a new

business is a planned and conscious one that necessitates preparation; therefore, it is a planned behaviour (Ozaralli & Rivenburgh, 2016). The planned behaviour theory places emphasis on the intention to foretell actual behaviour based on three fundamental concepts (Ajzen, 1991). **Error! Reference source not found.** below shows the theory of planned behaviour framework.

Figure 2: *Theory of planned behaviour*

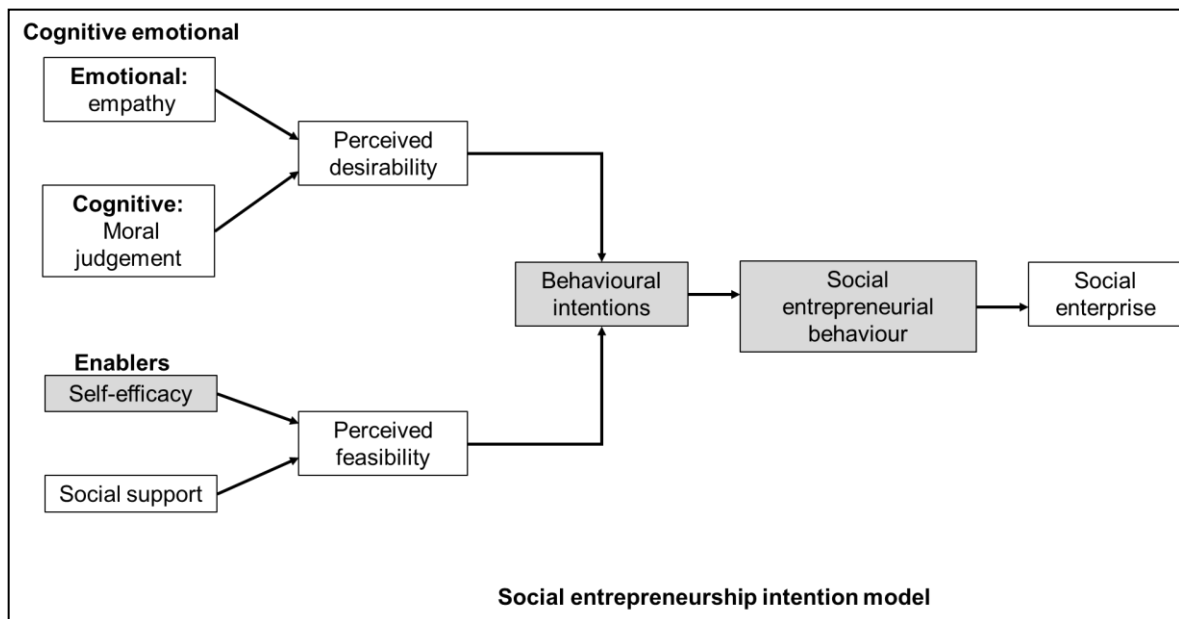


Note. Adapted from Theory of Planned Behaviour by Ajzen, 1989

It is undeniable that the planned behaviour theory of is one of the most commonly applied theory for forecasting actions through behavioural intentions. However, there have also been other models have been developed (Kruse, 2020). According to Mair & Martí (2006), who developed the model of social entrepreneurial intention formation, and offered a unique chance to evaluate, question, and reimagine notions and assumptions brought forward in management and business research. In this model, intentions are measured using individual variables. This model included perceived desirability and feasibility as part of Shapero's entrepreneurial even model (Zaremohzzabieh et al., 2019). A study by Mair & Martí (2006) concluded that the intention to develop a social enterprise could be developed from perception to desirability over time. Empathy is

considered to be a cognitive-emotional construct. In contrast, moral judgment is considered a conceptual construct, and its feasibility perception is greatly influenced by enablers, which are self-efficacy and social support (Mair & Martí, 2006). **Error! Reference source not found.** represents the first social entrepreneurial intention model.

Figure 3: *Social entrepreneurial intention formation model*



Note. Adapted from the social entrepreneurial intention formation model by Mair & Martí, 2006. Emphasising on the variables utilised in this study

To increase the empirical validity of the models, other researchers have proposed modifications to the structure of the planned behaviour theory and the Mair and Noboa (2006) model. An example of this is the model developed by Hockerts (2017), which combines the experience of social entrepreneurship with components of the social entrepreneurial intention formation model. Another model incorporates the indirect impact of subjective norms via the other two dimensions into the theory of planned behaviour (Kruse, 2020). This was to achieve a better model fit. Despite this, however, the theory of planned behaviour continued to be the most preferred model among researchers.

Consistent with the planned behavioural approach, personal beliefs in one's capacity to execute specific actions influence perceptions of behavioural control and attitudes toward particular activities, influencing one's willingness to engage in such behaviours (Ajzen, 1989, 2020; Tsai et al., 2014). Individual behavioural intentions are driven by some consideration, with new actions and significant decisions receiving more extensive consideration than usual activities.

2.4.1. Attitude

The first is attitude, which is the inclination to respond positively or negatively to another person, object, event, or institution. It can also be referred to as an individual's overall view of someone else's behaviour (Ajzen, 1989; Ajzen, 1991). Attitude towards the behaviour is theorised and stems from behavioural beliefs that result in either a positive or a negative attitude (Ajzen & Schmidt, 2020). Individuals acquire attitudes based on their ideas about the consequences of engaging in such an action. Among these consequences are intrinsic and extrinsic rewards (Ajzen, 1991; Ozaralli & Rivenburgh, 2016). This implies that an individual who anticipates a perceived favourable outcome from social enterprises has a positive attitude towards social entrepreneurship. Several studies have demonstrated that attitude towards a behaviour affects entrepreneurial intentions in a significant but positive way. Unlike traits, attitudes are more evaluative and impact specific intentions (Tiwari et al., 2017b).

The difference between attitudes and traits is that attitudes are evaluative toward a particular purpose. In studies of entrepreneurial intention, attitudes toward entrepreneurial behaviour have been shown to be a compelling factor influencing intention positively. Several studies have found that attitudes towards a behaviour are the strongest or second strongest predictors of social entrepreneurial intentions, followed by perceived control over behaviour (Tiwari et al., 2017a). There are two types of behavioural attitudes: Affective and Instrumental. Where affective attitude is related to an individual's viewpoint of whether or not they find a behaviour pleasant. Alternatively, instruments of action determine whether a behaviour is beneficial or detrimental. Entrepreneurship intentions are influenced by an individual's attitude toward

a behaviour, in this case, entrepreneurship, which is determined by the perceived desirability of entrepreneurship (Amofah & Saladrighes, 2022).

2.4.2. Subjective norms

On the other hand, according to the planned behaviour theory, other people's perspectives and opinions towards social entrepreneurial behaviour partly explain the discrepancies in social entrepreneurial intentions. Subjective norms are the beliefs in the perceptions of the people one is closest to, whether they favour or disapprove of a given behaviour (Ozaralli & Rivenburgh, 2016; Tsai et al., 2014). An individual's subjective norms influence his or her self-perception, shape self-efficacy beliefs, shape outcomes, and as a result, domain-specific intentions are more likely to be formed (Santos & Liguori, 2020). It has to do with thoughts about whether their peers and other key members of their lives think they should participate in the behaviour (Ajzen, 1991).

Prior research (Tsai et al., 2014) indicated that subjective norms also diminished the direct impact of entrepreneurship self-efficacy on entrepreneurial intentions in the relationship between entrepreneurial self-efficacy and entrepreneurial intention. In previous research, it has been demonstrated that general self-efficacy is significantly positive when referring to entrepreneurship intentions. At the same time, it is significantly negative when referring to individuals with a lower level of subjective norms toward entrepreneurship (Santos & Liguori, 2020).

Entrepreneurship intentions are more likely elicited by subjective norms from relevant individuals than perceived approval or disapproval, for instance, when there are positive subjective norms for relevant others. These individuals will proactively facilitate access to different resources for the individual to succeed. In contrast, other studies have found that entrepreneurial intentions and subjective norms have an insignificant direct relationship (Trivedi, 2017; Tiwari et al., 2017a). Therefore, further research should be conducted on subjective norms in a country with a strong sense of family and a significant emphasis on collectivism, which may affect decision-making processes

(Tiwari et al., 2017a). Consequently, one of the aims of this study was to investigate the relationship between subjective norms and social entrepreneurial intentions.

In contrast, recent research suggests that subjective norms can negatively impact entrepreneurial intentions, especially if the individual perceives them as a form of pressure (Asimakopoulos et al., 2019). Several studies have portrayed significant relationship between social norms and the intentions to become an entrepreneur. Concerning the influence on the intention to influence behaviour, social norms are often one of the weakest elements (Zhao et al., 2005). A possible explanation may be highly depended on the study conducted, social norms directly or indirectly affect entrepreneurial intentions (Asimakopoulos et al., 2019).

However, the relationship of subjective norms with entrepreneurial intentions is different in the literature. Based on Ajzen's (1991) model, the effect of subjective norms is direct, which is contrary to other studies in entrepreneurship which have demonstrated an indirect impact via attitude and/or perceived behavioural control. This may be owing to the possibility that subjective norms have a relatively small bearing on entrepreneurial intentions (Entrialgo & Iglesias, 2020).

2.4.3. Perceived behavioural control

Perceived behavioural control relates to an individual's belief in their capacity to perform the desired behaviour. People experience behavioural control differently, depending on situations and actions, resulting in diverse perceptions of behavioural control. With this element, the Theory of Reasoned Action became the Theory of Planned Behaviour (Ajzen, 1991). A precursor to the notion of planned behaviour, as articulated in the theory of reasoned action describes how an individual's behaviour results from their purpose of the behaviour (Ajzen, 1991). Behavioural control is central to the theory's original formulation. Perceived behavioural control modifies the impact of attitude and subjective norms on intention.

According to Ajzen & Schmidt (2020), perceived behavioural control is based on two principles. The first is self-efficacy, and the second is controllability, which refers to an individual's ability to perform the necessary actions to achieve a particular goal. The

perception of controllability reflects that one has complete control over the execution of behaviour, including external control factors, like resources, opportunities, and barriers. It reflects one's perception that one has complete control over behaviour execution. Thus, the prevailing view today is that in determining perceived self-efficacy and controllability. Perceived self-efficacy is determined by perceived difficulties and perceived self-belief (Kruse, 2020).

Furthermore, because it is often difficult to determine how much control people have in particular circumstances, perceived behavioural control is employed to predict actual control. Of course, perceived behavioural control may only be helpful as a predictor of actual control if it is authentic and matches precise control reasonably well (Ajzen & Schmidt, 2020). The likelihood of individuals carrying out a particular behaviour is higher if they have a strong sense of behavioural control (Ajzen, 1991). However, in the entrepreneurial case, empirical studies have explained that individuals with an attitude of positivity towards entrepreneurship and high-perceived behavioural control may not intend to engage in entrepreneurial activity (Entrialgo & Iglesias, 2020).

2.5. The antecedents and social entrepreneurial intentions

Ozaralli & Rivenburgh, (2016) found a positive relationship between entrepreneurial intention and subjective norms, attitudes, and perceived behavioural control. However, more needs to be written about their impact on social entrepreneurial intention. Subjective norms, in general, tend to have a weaker impact on entrepreneurial intention, depending on the person's proclivity to comply and his/her attributes (Ozaralli & Rivenburgh, 2016). Positivity in entrepreneurial intentions correlates with subjective norms, attitudes, and perceived behavioural control (Doanh & Bernat, 2019; Trivedi, 2017). However, more needs to be found on their impact on social entrepreneurial intention. Subjective norms, in general, have a more negligible effect on intention, depending on the individual's tendency to comply and personal characteristics. (Ozaralli & Rivenburgh, 2016).

2.6. Self-efficacy

The term self-efficacy refers to the degree of confidence an individual has in their abilities when planning and undertaking the steps necessary to deal with a likely situation or activity. It determines the amount of preparation and performance an individual puts into a task (Bandura, 1982). Self-efficacy falls under the Social Cognitive theory. An essential characteristic of social cognitive theory is that it emphasises the critical role that psychological factors play in human functioning (Romeo et al., 2021). The theory has been widely applied to various fields, such as education, business, and health, as well as the psychological disciplines where it originated.

As defined by the pioneer of the theory Bandura (1982), it distinguishes between the three modes of agency: direct personal agency, proxy agency, and collective agency. An integral part of cognitive, social learning theory is the consideration of the mutual influences between the individual, the physical and psychological environment, and the task or behaviour that must be considered (Nwosu et al., 2022).

Furthermore, it has been applied in the literature to provide a granular understanding of behaviour. Several constructs that influence behaviour have been incorporated into the theory over the years. In this regard, they encompass outcome expectation, which is the expected benefits and effort associated with altering behaviour (Bandura, 2004), intentions to participate in an activity, perceived barriers to participation, setting activity goals, and lastly, self-efficacy (Bandura, 2004; Romeo et al., 2021).

Self-efficacy also explains how beliefs influence individual motivation, behaviour, and actions that can impact one's life (Fenech et al., 2019). Self-efficacy, intimately tied to intentional behaviour, impacts how an individual perceives a situation and, as a result, how they respond to it. Consequently, it favourably relates to entrepreneurial intentions (Santos & Liguori, 2020). Self-efficacy determines the number of effort people will devote to an activity, how long they will persist when confronting obstacles, and how resilient they will be in adverse circumstances. Corporate, social and entrepreneurial settings have been the most common application of this phenomenon (Maitlo et al., 2020; Nwosu et al., 2022; Tsai et al., 2014). Therefore, social, entrepreneurial, and other types of self-efficacy have developed.

Since entrepreneurial discerning is strongly correlated with self-efficacy. Motivational constructs such as self-efficacy influence decisions, ambitions, reactions to emotions, perseverance and dedication among individuals (Bandura, 1982). Scholars who studied self-efficacy have argued that entrepreneurs with an elevated level of self-efficacy have a tendency to work harder for longer, to endure and persist through setbacks and develop more effectively. As another significant construct in entrepreneurship literature, self-efficacy has been used to determine a participant's belief that he or she can successfully perform the various tasks and roles associated with entrepreneurship (Newman et al., 2019; Urban, 2020).

2.7. Entrepreneurial self-efficacy

Preliminary studies have shown that entrepreneurial self-efficacy is required for entrepreneurial behaviour and influences company launch, effectiveness, and growth (Chen et al., 1998; Santos & Liguori, 2020). Chen et al. (1998); Tsai et al. (2014) have ascertained entrepreneurial efficacy as a significant predictor for understanding individuals' intentions as they venture into business start-ups and succeed. Entrepreneurial self-efficacy refers to a firm perception of their ability to succeed as entrepreneurs (Hossain et al., 2021; Newman et al., 2019). Maitlo et al. (2020) describe entrepreneurial self-efficacy success pillar for an individual's belief that enables them to achieve entrepreneurial success when executing entrepreneurial duties. However, the influence of entrepreneurial self-efficacy on entrepreneurial intentions has been the subject of scholarly investigation for some time (Tsai et al., 2014).

Self-efficacy has become increasingly crucial for analysing human behaviour, as it influences individual decisions, efforts, and perseverance (Tomy & Pardede, 2020). According to Doanh & Bernat, (2019), individuals who have elevated levels of self-efficacy for an activity are mostly inclined to participate in and continue to perform the job than those who have low self-efficacy to someone with low self-efficacy. It is important to note that self-efficacy concerns how a task is completed rather than the outcome of the activity. Starting a business can present many challenges and risks to entrepreneurs; therefore, before venturing into a business, individuals judge their ability to perform the anticipated task concerning how positively or negatively stimulated they are by that particular task (Gielnik et al., 2019). Several studies have demonstrated that

entrepreneurial self-efficacy is positively related with developing entrepreneurial goals. However, other studies have also recommended that self-efficacy can adversely hinder goal achievement in domains other than entrepreneurship when goals are set after they have been established (Gielnik et al., 2019).

2.8. The moderating role of entrepreneurial self-efficacy

Entrepreneurial self-efficacy emerged as a result of scholars discovering how self-efficacy impacts entrepreneurial enthusiasm, intention, behaviour, and success, as well as being a key entrepreneurship outcomes, coaching and education (Newman et al., 2019). Furthermore, as entrepreneurial thinking and action have a growing influence on career development, the topic of entrepreneurial self-efficacy has become more relevant to researchers in their professional careers, educators, and government agencies (Nwosu et al., 2022).

Several research studies have investigated the relationship between entrepreneurial self-efficacy and entrepreneurial intent. For example, students with a high degree of self-efficacy tend to have high degree of entrepreneurial intention and even entrepreneurial behaviour (Chen et al., 1998; Entrialgo & Iglesias, 2020; Kickul et al., 2009). Further to a significant relationship between entrepreneurial self-efficacy and social entrepreneurial intent, entrepreneurial self-efficacy indirectly influences entrepreneurial intention by influencing attitudes toward entrepreneurship and perceived behavioural control.

However, not much empirical information is available to determine. The relation between entrepreneurial self-efficacy and social entrepreneurial intention is mainly when entrepreneurial self-efficacy is high and the moderator. Therefore, this study proposes to improve our understanding of this relationship by investigating the moderating influences of entrepreneurial self-efficacy on the relation between the antecedents of intention and intention towards social entrepreneurship.

Individuals are more likely to develop a profitable business through entrepreneurial behaviour if they are confident in their abilities. Therefore, entrepreneurial self-efficacy has been demonstrated to improve entrepreneurial intention and, thus, planned behaviour (Chen et al., 1998; Tsai et al., 2014). According to Tsai et al. (2014), Self-

efficacious entrepreneurs may also have high entrepreneurial ambition since they have the belief that it is easy to establish a business venture. Extensive research has been undertaken on entrepreneurial self-efficacy and entrepreneurial intentions. The Planned Behaviour Theory remains the dominant model of intentions (Ajzen, 1989). More entrepreneurial self-efficacy studies within context can lead to more vital predictions on the role of self-efficacy. There has been an increase in interest in measuring entrepreneurial self-efficacy to forecast entrepreneurial intention (To et al., 2020). Using the planned behavioural theory and self-efficacy theory, researchers would investigate the relationship between entrepreneurial self-efficacy and entrepreneurial intention.

Prior research has shown that the linkage between general self-efficacy and entrepreneurial intentions is beneficial for those with favourable subjective norms toward entrepreneurship (Santos & Liguori, 2020) when entrepreneurial self-efficacy increases, the real impact of subjective norms on intentions decreases, but the indirect effect of entrepreneurial self-efficacy toward general entrepreneurship strengthens the connection between attitudes and entrepreneurial intention (Santos & Liguori, 2020).

2.9. Conclusion

This chapter review includes an in-depth study of the most recent literature. The introduction of the principle of planned behaviour as the theoretical model identifies the three main antecedents – attitude, social norms, and perceived behavioural control. The chapter defines social entrepreneurial intention based on literature discussions on the topic. It also describes some of the drivers of social entrepreneurial intention while reviewing its development over the years. The chapter elaborated on the relationship of each antecedent on social entrepreneurial intention, namely attitude towards a behaviour, subjective norms and perceived behavioural control. The correlation between intention antecedents and the social entrepreneurial intention was investigated. In addition, the chapter introduces entrepreneurial self-efficacy as a moderator to the relationships, as mentioned earlier. Following a study of entrepreneurial self-efficacy as a moderator, the study will be broadened to analyse the relationship between entrepreneurial self-efficacy and social entrepreneurialism. The following chapter outlines the research question and hypotheses for the study.

CHAPTER 3

RESEARCH HYPOTHESES

3.1. Introduction

The research's main objective was to understand better how the relationship between social entrepreneurial intentions and attitude, subjective norms and behavioural control, which are the antecedents, is moderated by entrepreneurial self-efficacy.

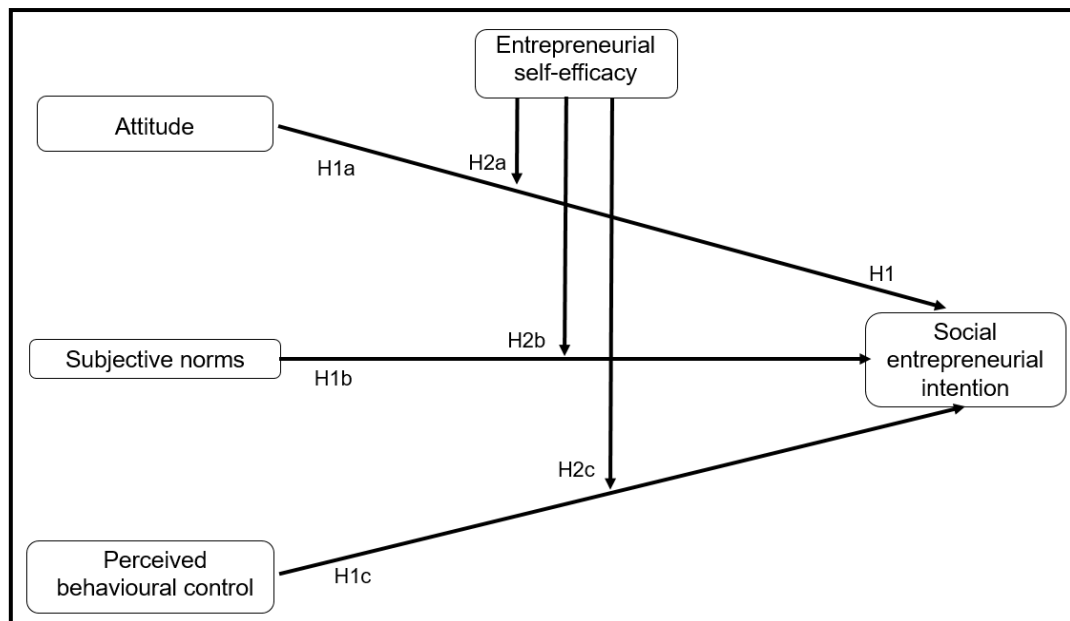
3.2. Conceptual model

Based on the research problem outlined above, the following research question was used for this study:

1. What is the moderating role of entrepreneurial self-efficacy impacting the relationship between social entrepreneurial intention antecedents and social entrepreneurial intention?

The conceptual model for the research study is illustrated in Figure 4. The arguments for each of the shown hypotheses are presented below.

Figure 4: A conceptual model for the study



Note. The concept model to be investigated during this study.

3.3. Hypothesis

Ajzen (1991) theorised the constructs of perceived behavioural control, subjective norms and attitude towards a behaviour as antecedents of intention, which eventually led to the behaviour. Research in this area has been extensive, especially on how these constructs impact general entrepreneurial intention (Doanh & Bernat, 2019; Trivedi, 2017). However, the first hypothesis and sub-hypotheses determine the impact of the three intention antecedents on the more specialised social entrepreneurial intention. Bringing the context of societal concerns that have increased over the years (Tan et al., 2020).

- Hypothesis 1:** Antecedents of social entrepreneurship intention have a positive impact on social entrepreneurial intentions.
- Hypothesis 1a:** Attitude towards social entrepreneurship has a positive impact on social entrepreneurial intentions.
- Hypothesis 1b:** Subjective norms have a positive impact on social entrepreneurship intentions.
- Hypothesis 1c:** Perceived behavioural control has a positive impact on social entrepreneurship intentions.

According to social entrepreneurship literature, a substantial degree of self-efficacy encourages a people to consider the establishment of a social enterprise.

It has been established that entrepreneurial self-efficacy positively impacts social entrepreneurial intention (Mair & Martí, 2006; Rambe & Ndofirepi, 2021; Tiwari et al., 2017). The second hypothesis and sub-hypotheses were formulated based on the impact of entrepreneurial self-efficacy's moderating role on the antecedents of intention and social entrepreneurial intention. When entrepreneurial self-efficacy increases, the direct effect of attitude on social entrepreneurial intention is strengthened with contextual factors. In contrast, the direct effect of subjective norms on social entrepreneurial intention is weakened when there is an increase in entrepreneurial self-efficacy, when

entrepreneurial self-efficacy increases, the direct effect of perceived behavioural norms on social entrepreneurial intention is strengthened.

Hypothesis 2a: Entrepreneurial self-efficacy has a moderating effect on the relationship between attitude and social entrepreneurial intention.

Hypothesis 2b: Entrepreneurial self-efficacy has a moderating effect on the relationship between subjective norms and social entrepreneurial intention.

Hypothesis 2c: Entrepreneurial self-efficacy has a moderating effect on the relationship between perceived behavioural control and social entrepreneurial intention.

3.4. Conclusion

As described in this chapter, a theoretical research model was presented, and a description of the hypothesis was tested during the study. The purpose of the following chapter will be to provide an overview of the methodology and design of the study that was selected to conduct this descriptive research study.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1. Choice of research design

Over the years, research has accumulated on the issue of social entrepreneurial intent, resulting in a body of knowledge based on numerous ideas and views (Igwe et al., 2020; Peredo & McLean, 2006; To et al., 2020). The research study aimed to construct a link between the independent and dependent variables. Thus, the research was quantitative and explanatory. The independent variables included attitude, subjective norms, and perceived behavioural control, as derived from the theory of planned behaviour, emphasised as the antecedents of intention by some studies (Doanh & Bernat, 2019). These were the antecedents of intention, and the dependent variable was the social entrepreneurial intention. Furthermore, entrepreneurial self-efficacy was the moderator (an independent variable) that affected the dependent variable. Explanatory research helped provide a more comprehensive understanding of students' social entrepreneurial intentions and how the above elements impacted them.

Moreover, the chosen research design was aligned with the research question, as the findings provided strong evidence of the influence of attitude, subjective norms and perceived behavioural control as dependent variables; as well as the moderating effect of entrepreneurial self-efficacy (Doanh & Bernat, 2019; Saunders & Lewis, 2018; Igwe et al., 2020). The philosophy of the study was positivist, as the nature and the development of knowledge utilised highly structured methods to facilitate reproduction (Saunders & Lewis, 2018a). The study obtained knowledge on social entrepreneurial intentions by making direct inferences from the data collected, using objective approaches that tested and confirmed the hypotheses. The philosophy addressed the research objectives and obtained credible insight into the social entrepreneurial intentions of students (Rambe & Ndofirepi, 2021).

This was aligned with more than 120 studies reviewed by Newman et al. (2019) relating to entrepreneurial self-efficacy and intentions. This research aimed to examine the effects of entrepreneurial self-efficacy, attitude, subjective norms, and perceived behaviours on students' social entrepreneurial intentions. The findings demonstrated the

impact of these dimensions on social entrepreneurial intention by testing the hypotheses using the planned behaviour theory. Similar studies have been conducted before and followed a similar approach (Ip et al., 2018; McGee & Peterson, 2019; Igwe et al., 2020). The data was gathered and quantified to address the hypotheses and the overarching research topic. Therefore, the research approach of the study was deductive. It also developed and demonstrated an understanding of the existing theory, which was directed towards using data collected to explain the impact between variables (Hashim et al., 2020; McGee & Peterson, 2019; Saunders & Lewis, 2018).

The research design used one data collection technique; a survey questionnaire, which led to a better understanding of the relationship and provided an overall view of students' intentions to become social entrepreneurs. Accordingly, the chosen methodology was a mono-method quantitative study. In addition, due to the limited time in which the study was undertaken, a multi-method or a mixed-method approach would have required more time to collect and analyse the data (Saunders & Lewis, 2018). Nonetheless, since all of the constructs are widely recognised in the literature, a mono-method was deemed appropriate and provided sufficient knowledge for the study. The study used only the research survey strategy to gather meaningful data from various university post-graduate students, with at least one qualification to gain knowledge on each of the constructs; the information from the respondents was scored. This was typical of an explanatory quantitative study because survey questionnaires provide standardised data from a considerably large population of students to allow for better comparison.

This eventually gave an overall score, which provided a snapshot of the social entrepreneurial intention of the university's post-graduate students (Newman et al., 2019; Saunders & Lewis, 2018). In addition, the chosen strategy allowed us to reach a more extensive sample without necessarily interacting with the participants in different areas because it complemented the deductive approach. Therefore, the results were generalisable to the whole population (Edmondson & Mcmanus, 2007).

The study was conducted at a particular time; therefore a cross-sectional study. The selected technique is a survey questionnaire in which respondents provided insight into their current social entrepreneurship intentions and a picture of their stance on the subject. In contrast, longitudinal studies represent a period with sufficient time to

research and study the changes and developments from one time to another. Even though a longitudinal study would look into the prior and post outcomes of the study, providing a higher quality of the effect, due to the time constraints the research project undertaken under, the study followed a cross-sectional time horizon. However, the research was designed to measure some critical constructs influencing social entrepreneurial intention to attain better relationships (Köhler et al., 2017; Saunders & Lewis, 2018).

4.2. Proposed research methodology

4.2.1. Population

The research study aimed to determine the relationship between the antecedents, attitudes, subjective norms, and perceived behaviours on university post-graduate students' social entrepreneurial intention when entrepreneurial self-efficacy was moderating. Therefore, the study population was limited to individuals who had primarily graduated from a university institute and are currently pursuing their post-graduate qualifications or considering their following career opportunities after attaining their post-graduate qualifications. This population was deemed appropriate for the study because it was based on an intention to initiate a social enterprise as the graduates' next career move.

4.2.2. Unit of analysis

The unit of analysis refers to the notion or element that is the focus of an investigation (Saunders & Lewis, 2018a). Specifically, this study seeks to examine the relationship between social entrepreneurial intention and the antecedents of intention and entrepreneurial self-efficacy when it serves as a moderating factor. Thus, the unit of analysis for this study was individuals who were faced with an opportunity to choose social entrepreneurship as a potential career alternative in the near future. Individuals who have recently graduated with at least one qualification from a university institute are the proposed unit of analysis.

4.2.3. Sampling method and size

Since the study population was individuals with at least one qualification from a university institute, this included all recently graduated students who were about to decide on their career paths. Therefore, people with at least one university qualification were sampled using a non-probability sampling technique, which is the selection of individuals from a population using subjective and convenient techniques such as drawing from a readily accessible sample of the population (Zikmund et al., 2013). This assumes that the sample is representative of the entire population. This is because a sampling frame cannot be specified based on the entire post-graduate student population from South African universities. In addition, it would have been difficult for the researcher to obtain a list of university graduate students in South Africa. Therefore, this allowed the researcher to select suitable individuals to complete the questionnaire purposefully and eliminated the need for quota variables (Saunders & Lewis, 2018a). Moreover, Trivedi (2016) has contended that convenience sampling is acceptable for such a study since it aims to provide point estimates rather than test the relationship between variables.

To ensure that participants were drawn from a wide range of university institutions and fields of study, the sample was as varied as practically possible. Self-selection sampling was utilised to administer the surveys to those who fulfilled the population requirements (Rambe & Ndofirepi, 2021; Saunders & Lewis, 2018). The networks of professional and academic affiliations of the researcher were used to identify and select participants. The intended sample size was 200-250 participants. Participants were asked to re-distribute the surveys to other eligible individuals within their networks, utilising snowball sampling, which is typically used for online survey sampling (Marcus et al., 2017). However, snowball sampling was necessary to obtain a sample size of 200 – 250, which provided enough data to test the hypotheses and make inferences on the entire population and the relationship between constructs. It is worth mentioning that even though snowball sampling was used, all participants met the sampling criteria of the research study.

4.2.4. Measurement Instrument

An online questionnaire was used as the study's measuring instrument. Questionnaires are useful for gathering standardised and organised data from many participants, allowing theory and correlations to be tested as part of the study (Edmondson & Mcmanus, 2007). The questionnaire used for the research study was adapted from literature and is shown in Appendix B (Trivedi, 2017; Doanh & Bernat, 2019). The instrument of social entrepreneurial intention contained an overall number of 43 items divided into two main sections, demographic information and theoretical scale questions addressing the topic.

4.2.5. Demographic data

Demographics covered 11 items, including questions such as age, gender, current professional activity and previous respondents' exposure. This was to understand the respondent's background better. The theoretical components of the questionnaire were further divided into the tested constructs and sub-constructs. There were six social entrepreneurial intention items, five items on attitude, four items on subjective norms, five on perceived behavioural control, and nine on entrepreneurial self-efficacy (Doanh & Bernat, 2019; Trivedi, 2017). A five-point Likert scale was used to structure the questionnaire, from strongly disagreeing to strongly agreeing.

4.2.6. Independent variables

Ajzen (1989, 1991) defined attitude towards social entrepreneurial behaviour as the propensity to react favourably or unfavourably to another individual, event, or institution, thus portraying the individual's overall perception of his or her behaviours. This was measured on a Likert scale with ratings ranging from 1 – strongly disagree to 5 - strongly agree. The Cronbach's alpha of attitude towards social entrepreneurial intention was estimated to be 0.77 (Tiwari et al., 2017b), even though a seven-point Likert scale was used, and the conducted study used a five-point Likert scale, and the constructs were linked to other variables. This displayed excellent internal consistency and reliability (Doanh & Bernat, 2019).

Subjective norms are a person's impression of social pressures exerted on them when deciding whether to or not execute a particular behaviour. These are pressures from family, acquaintances, and other vital individuals close to the subject. This was assessed on a Likert scale, with values ranging from 1 to 5, where 1 strongly disagreed and 5 strongly agreed. A Cronbach's alpha of 0.69 was estimated (Tiwari et al., 2017b). Even though the scales differed, the estimate showed good internal consistency and reliability (Merom & John, 2019).

Perceived behavioural control is the notion of ease or difficulty when carrying out an activity of interest. This relates to the capacity to have the necessary abilities to operate a business and be successful and the impression of the behaviour's controllability (Doanh & Bernat, 2019). Perceived behavioural control was assessed on a five-point Likert scale, with values ranging from 1 to 5, with 1 as strongly disagree and 5 as strongly agree. An excellent Cronbach's alpha of 0.81 was estimated for this study, even though the correlation with this construct was with entrepreneurial intention and not social entrepreneurial intention (Trivedi, 2017).

4.2.7. Dependent variable

The intention social entrepreneurship refers to the willingness to establish specific plans to venture and/or participate in a social enterprise. Essentially, it refers to Achieving sustainable social development by seeking out opportunities and solutions. Social entrepreneurial intention aims to create social value and address social challenges with innovation as the main objective. This distinguishing factor sets social enterprises apart from other forms of enterprises. This study assessed social entrepreneurial intention on a five-point Likert scale, with values ranging from 1 to 5, with 1 as strongly disagree, and 5 as strongly agree. A Cronbach's alpha of 0.81 was estimated for this study, based on a tool with more constructs and a seven-point, as opposed to a five-point Likert scale (Tiwari et al., 2017b).

4.2.8. Moderator

Entrepreneurial self-efficacy speaks to a person's confidence in their ability to prepare and perform measures required to deal with a foreseeable entrepreneurial activity. Studies have shown that entrepreneurial self-efficacy is a powerful auxiliary of entrepreneurial outcomes (Doanh & Bernat, 2019). Entrepreneurs' sense of self-efficacy is said to influence their perceptions of social entrepreneurship's practicability, which has been identified as a crucial component of social entrepreneurship success (Rambe & Ndofirepi, 2021). The moderator, entrepreneurial self-efficacy, was assessed on a 5-point Likert scale, with values ranging from 1 to 5, of which 1 strongly disagreed and 5 strongly agreed. The estimated Cronbach's alpha was 0.82 according to a study conducted by Rambe & Ndofirepi (2021) in one of Africa's depressed economies, Zimbabwe; indicating excellent internal consistency and reliability (Merom & John, 2019).

4.2.9. Data gathering process

A survey questionnaire was developed online using Google forms. The primary data collected from respondents practically and cost-effectively, allowed the participants to easily share the survey with other participants that met the criteria in order to gain access to a larger number of suitable participants (Marcus et al., 2017). However, this distribution method was limited to non-random selection (Saunders & Lewis, 2018a). The survey questionnaire was designed to ensure that all respondents completed all the questions before submitting them and that they remained anonymous throughout the study.

A pre-test of the questionnaire was undertaken with a sample of six respondents, which was intended to determine the instrument's ability to collect the essential data and receive feedback from the respondents on their experience with the instrument. The pre-test was administered before the main research study began because it was used as a tool to detect possible problems with the study and questionnaire (Köhler et al., 2017). The input and feedback provided insights on ambiguous questions that needed to be re-worded, repeated questions, the numbering of questions, and complex key terms that needed to be defined for the participants to understand the questions better. For

example, the phrase social entrepreneur had to be defined, and the questionnaire was amended in order to be consistent throughout. This included firms only using the word "business" and not interchanging "business" with either "firm" or "entity," and changing the word "mates" to "friends." The pre-test was crucial for ensuring a larger sample size was attained, which included various economic activities, social challenges, and entrepreneurial prospects addressed by the study (Trivedi, 2017). All the pre-test participants found the study intriguing and had the potential to provide relevant information.

The survey questionnaire was structured and standardised to include information on the participants' opinions, characteristics, backgrounds, and behaviours and to allow for easy comparability between individual respondents. The online survey distribution allowed the survey to be easily distributed around the country. The questionnaire was sent via email, WhatsApp, LinkedIn and Facebook to participants within the researcher's contacts and professional networks. The survey questionnaire link from Google Form's estimated time to complete the survey was 10 – 15 minutes. The data collection period was approximately 5 weeks, as the survey was opened from 26 July until 27 August 2022., which was less than the six weeks recommended by Saunders & Lewis (2018a). However, the number of respondents exceeded the targeted sample size.

Some respondents indicated when they had completed the survey, and those who did not send anything were sent a personalised reminder message after 2 weeks. The respondents that further distributed the survey to their networks were also reminded to send follow-up messages to the networks as a reminder. To ensure that all submitted questionnaires were fully completed, all questions were marked as required on Google forms. An overall number of 252 respondents responded, and their questionnaire provided data for the study. Of the 252 respondents, 237 were from South Africa. Therefore, only respondents from South Africa were considered. To ensure that respondents did not duplicate entries, a timecode was provided by Google Forms for each respondent that was linked to the respondents' IP address. The response data was downloaded from Google forms as a comma-separated value (CSV) file, which is compatible with Microsoft Excel and IBM SPSS.

4.2.10. Data analysis approach

The CSV file with the collected data from the respondents was reviewed to ensure there were no errors, and because all questions were marked as required, there was no missing data. In Microsoft Excel, in the demographic section, each descriptive question was categorised using numeric codes to allow for statistical analysis (Saunders & Lewis, 2018b). These included age group, gender, education level, the field of study, country, type of professional activity, and highest qualification. They were asked whether they had received entrepreneurial-specific education, whether they had been involved in social projects before and whether they had integrated social responsibilities into what they were doing. The descriptive statistic was then analysed using SPSS to obtain frequency, percentage and proportionality. In addition, descriptive statistics were also used to include the mean, standard deviation and skewness (Trevor, 2016).

Inferential statistical data was also analysed using SPSS software. In order to conduct research effectively, valid, reliable, and reproducible data must be obtained. A validity test was conducted to establish the validity of the constructs measured. A Pearson's correlation coefficient test was applied to evaluate the validity of the underlying constructs and sub-constructs: social entrepreneurial intention, attitude towards social entrepreneurship, subjective norms, perceived behavioural norms and entrepreneurial self-efficacy (Merom & John, 2019; Trevor, 2016).

Secondly, this was followed by a reliability test, which was intended to determine how reliable the questions were on the questionnaire at measuring what was intended. The study measured the internal reliability of each of the variables (constructs and sub-constructs) using Cronbach's alpha values (Merom & John, 2019). The expected Cronbach's alpha for attitude towards social entrepreneurial intention was 0.826. subjective norms. A Cronbach's alpha of 0.822 was expected for perceived behavioural intention (Doanh & Bernat, 2019). The Cronbach's alpha for social entrepreneurial intention was expected to be 0.815, and for entrepreneurial self-efficacy, it was supposed to be 0.817 (Rambe & Ndofirepi, 2021).

A confirmatory factor analysis was undertaken to ensure that the data measured the intended variables (Rambe & Ndofirepi, 2021; Vaske et al., 2017). The study utilised an

existing instrument which supported the use of confirmatory factor analysis (Zikmund et al., 2013). The study's purpose was also to evaluate whether the variables were related. The most prevalent unobserved causes of the impact that could be correlated as factors were examined to achieve this.

Once the measured latent constructs were identified, a confirmatory factor analysis (CFA) was undertaken, a theory-generating factor approach confirming the relationship between measures and constructs while generating theory (Hair et al., 2019). Diagrammatic modelling of the constructs was used in the CFA to determine the factor loadings and significance. Secondly, a model fit assessment was performed, followed by a quality control test, specifically validity and reliability tests, detection and common method bias test, and finally, an invariance assessment was done.

The multiple linear regression analysis investigated the relationship between the dependent variable and a collection of independent variables since the obtained data were ordinal and continuous (Saunders & Lewis, 2018b). Regression analysis is one of the most versatile dependence-modelling techniques used in business (Igwe et al., 2020; Ip et al., 2018; Rambe & Ndofirepi, 2021; Tsai et al., 2014). The influence of attitude, subjective norms, perceived behavioural control, and entrepreneurial self-efficacy on social entrepreneurial intention was analysed. The multiple linear regression analysis extends the simple linear regression analysis; in that it examines the relationships within the holistic multiple regression, assuming that multiple independent variables are connected to the outcome of the dependent variable (Trevor, 2016).

The equation below further explains the relationships that exist within the multiple regression model:

Equation 1 *Multiple regression equation*

$$y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_px_p$$

Where the y-value represented the calculated dependent variable from the equation, the regression coefficients b_0 , b_1 , b_2 , b_3 ... b_p , assessed the relative strengths of the relationships between each independent variable x_1 , x_2 , x_3 ..., x_p . The x_p -value was the error term that is derived from the variate, called the "measure of prediction error" (Trevor, 2016). The independent and dependent variables were numerical (Trevor, 2016). As a result, all categorical variables were converted to numeric values before use

(see Appendix B). Moreover, a Pearson correlation test was also utilised to investigate the strength of the hypothesised correlations (Hashim et al., 2020).

4.2.11. Quality controls

The study avoided dual roles when conducting the research by employing an online questionnaire as the data collecting method. This could have led to biases that would compromise the quality of the results. In addition, the questionnaire provided unambiguous instructions and comments on how their responses will not be traced back to them. For instance, no participant was required to disclose their name or any identifiers (Köhler et al., 2017). This was included in both the message sent and the Google form consent section. The sample contained business graduates and other fields of study to ensure credibility, as this provided the means to control for educational background when analysing the data (Köhler et al., 2017). The demographics of the sample such as age, gender, the field of study and current profession was analysed, and this ensured that the study is not biased in favour of specific demographics which could have compromised the generalizability of the sample.

To ensure validity, the questionnaire and scales used were adapted from the literature and used on the population. Therefore, convergent and discriminant validity were considered to establish good construct validity. Construct validity investigated how well the instrument measured and related each construct with the entire study and the other constructs. Conversely, discriminant validity demonstrated that two measures that were not intended to be correlated were, in fact, unrelated (Edmondson & Mcmanus, 2007; Merom & John, 2019). Therefore the Average Variance Extracted (AVE) was used for convergent validity, and the square roots of AVE were utilised for discriminant validity (Shah et al., 2020; Vaske et al., 2017). Significant AVE values of 0.5 or greater Give indications that there is appropriate convergence and internal consistency (Fornell & Larcker, 1981).

Conversely, the factor loadings were evaluated based on the diagrammatic model and the estimated output of the AMOS CFA. If the AVE is less than 0.5, indicating insignificance, then the variance due to measurement error is greater than the variance due to the construct itself (Fornell & Larcker, 1981). If so, the validity of the

comprehensive study would be compromised. Consequently, the AVE was calculated as part of the CFA and tested to ensure that it was greater than 0.5 to ensure convergent validity.

The survey was tested with a few participants to determine whether the respondents understood the responses to the questionnaire and to gain feedback from a participant's point of view before it was distributed to a larger sample (Saunders & Lewis, 2018a). The five-point Likert scale was deemed suitable to evaluate the moderating impact of entrepreneurial self-efficacy on the relationship between social entrepreneurial intention and the intention antecedents of, as verified by the literature (Fenech et al., 2019; Doanh & Bernat, 2019; Trivedi, 2017). A five-point Likert scale has been associated with increased alpha coefficient reliability (Hinkin, 1998). Moreover, the purpose of the study was clearly articulated on each questionnaire, and participation was strictly voluntary.

Furthermore, the questionnaire assessed the different constructs: Social entrepreneurial intention, attitude towards social entrepreneurship, subjective norms, perceived behavioural control and entrepreneurial self-efficacy. Therefore, Cronbach's alpha was applied to evaluate internal reliability. In other words, reliability was a characteristic of the measuring instrument. Conversely validity was an aspect of interpreting the results of the measuring instrument as it was used for its intended purpose (Merom & John, 2019). Cronbach's alpha and Composite Reliability (CR) values of at least 0.7 indicated good reliability (Rambe & Ndofirepi, 2021).

4.3. Limitations

The chosen time horizon to determine the contribution of entrepreneurial self-efficacy on the antecedents of intention and social entrepreneurial relationship was cross-sectional. This limitation was because the cross-sectional study was conducted at a particular moment and did not show the changes as time progressed. Therefore, it was impossible to infer any correlation between the variables or provide robust evidence. Another potential limitation of the research was the generalizability of the findings obtained in the South African context. The socioeconomic landscape was only generalised to a few emerging countries (Gielnik et al., 2019). Moreover, the sampling

technique was non-purposive, and the respondent selection was non-random and may have introduced bias.

4.4. Conclusion

This chapter provided a brief of the various components of the research design and methodology used to address the hypotheses and the research question outlined in chapter 3. It provided a detailed breakdown of the quantitative research approach undertaken while providing substantiation and support from the literature. Using the proposed research methodology, which comprised key components, essential information was gathered about the relationship between the antecedents and social entrepreneurial self-efficacy and the effect of the moderator, entrepreneurial intentions. Last but not least, the research limitations provided areas of caution regarding the design and conduct of the study, limiting the extent to which findings from it can be generalised and inferred.

CHAPTER 5

RESEARCH FINDINGS

5.1. Introduction

The section contains results from quantitatively and statistically analysing the data collected from the survey questionnaire as outlined in Chapter 4. This chapter provides all the results that stemmed from the research study. This section's structure begins with the data collection information and then how it was prepared for analysis. This includes data readiness and information obtained from the pre-test. This was followed by demographic information and descriptive analysis, such as testing outliers and the data's normality.

After that, the quality control findings included findings from the reliability test analysis and the CFA. This section was concluded with a construct validity analysis (both convergent and divergent).

Lastly, the hypotheses testing data findings from the multivalent regression tests were provided, including the ANOVA, correlation and regression findings. Chapter 5 (Results) only showcases the results from the study, and the interpretation of these results will be discussed in Chapter 6 (Discussion).

Initially, demographic results were presented, descriptive statistical results, the main results from the validity and reliability tests, and finally, exploratory factor analysis was presented. A test was done to determine whether the social entrepreneurial intention is correlated with each of the antecedents (attitude, subjective norms, perceived behavioural control).

5.2. Data collection

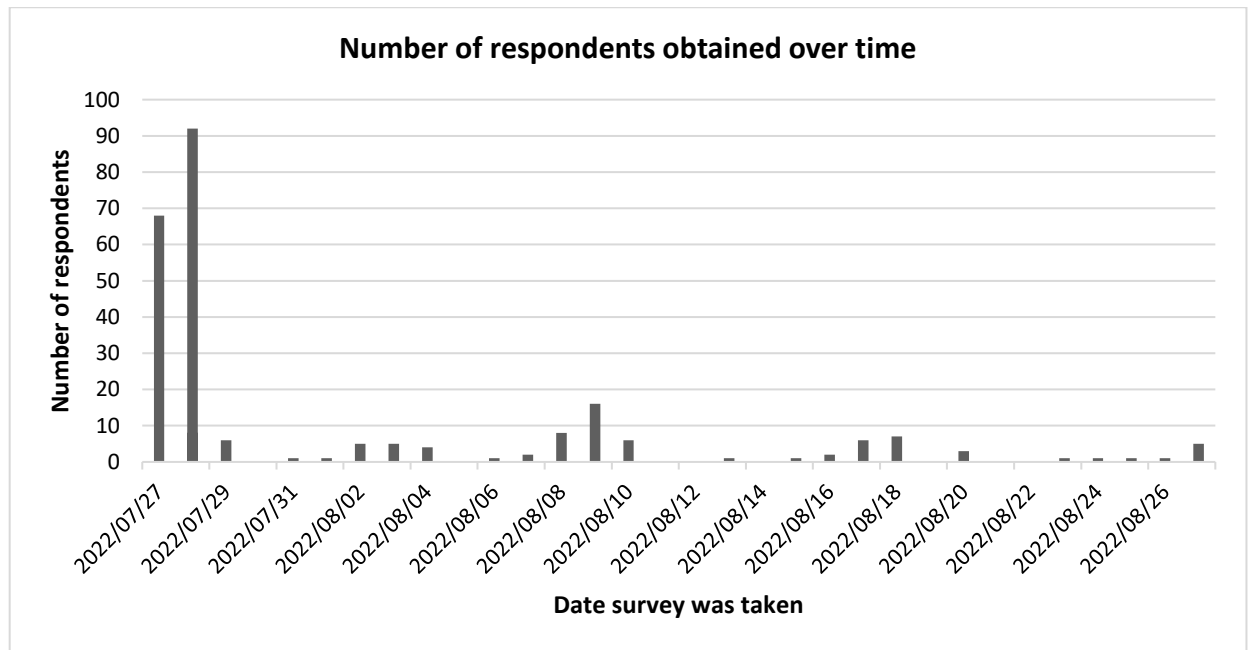
Data collection was initiated on 26 July 2022, and within the first day of collection, 68 post-graduates participated and completed the questionnaire. Then on the second day, 92 responses were collected, making a total of 160 surveys collected from respondents. There was an overall cumulative response rate of 63%. Most respondents completed the survey within two days. On day three, only 5 respondents participated, making 160 on that day. The number of participants gradually increased until an overall total of 252

questionnaires were completed and collected. The third highest number of survey responses was collected on 9 August, and 16 survey responses were collected. **Error! Reference source not found.** below shows the details of the increase in participation over time.

The data collected from all participants was anonymously downloaded and safely stored on an encrypted storage drive. The information would be kept securely for a minimum of 10 years. Additionally, all participant data was protected once it had been gathered, ensuring that confidentiality would be upheld throughout.

Additionally, anonymity was preserved by ensuring that no participant's data could be traced. This was achieved by not collecting personally identifiable information. While demographic inquiries were conducted, they were only used for aggregate reporting purposes.

Figure 5: *Number of respondents obtained over time*



5.3. Data analysis

5.3.1. Data preparation and coding for analysis

The data from the 252 survey respondents were collected from Google forms using Microsoft Excel. This population sample number already excludes the pre-test respondents, as this was collected first on a separate Google form. A pre-test was conducted on 7 participants to test how the sample would receive the survey. Feedback obtained from the pre-test was incorporated to improve the study. Refer to Appendix A for the pre-test feedback. The data had no missing results because all the questions in the questionnaire were marked as required on the survey platform, and no incomplete survey forms were submitted.

Thereafter, the data provided by each participant was screened to see if any respondents chose a single measure throughout the Likert scale questions without applying any thought to providing a genuine opinion during the survey.

The descriptive data was coded to numeric values starting from number 1 upwards for each question. These included age, gender, highest qualification level, professional activity, entrepreneurial education, country of residence, the year when the highest qualification was obtained, involvement in social projects, attitude towards initiating a social enterprise, involvement in helping activities and integrating social responsibility in professional activity. The final questionnaire used for the study, which includes the codebook, is represented in Appendix B.

5.3.2. Descriptive statistics - demographic information

The population boundaries for the study were determined in order to remove ineligible respondents and only use those from South Africa since that was the context of the study. Only South Africans were included. The survey received 252 responses in total, including 237 South Africans, as shown in **Error! Reference source not found.** The other 15 respondents were excluded from the study. These included respondents from Zimbabwe, Namibia, Eswatini and Germany.

Table 1: Respondents' country of residence

| Country Code |
|--------------|
|--------------|

| | Frequency | Percent |
|---------------------|-----------|---------|
| South Africa | 237 | 94.0 |
| Other | 15 | 6.0 |
| Total | 252 | 100.0 |

Other demographic information was only applicable to South African respondents; these are included in **Error! Reference source not found.**

Table 2: Respondent's demographic information

| Age and gender | | | |
|-------------------------------|------------------------------------|------------|--------------|
| Age Code | | Frequency | Percent |
| | 18 - 28 years | 26 | 11.0 |
| | 29 - 38 years | 142 | 59.9 |
| | 39 - 48 years | 61 | 25.7 |
| | More than 49 years | 8 | 3.4 |
| | Total | 237 | 100.0 |
| Gender code | | | |
| | Male | 93 | 39.2 |
| | Female | 144 | 60.8 |
| | Total | 237 | 100.0 |
| Education and work Experience | | | |
| Education level Code | | | |
| | Higher Certificate | 6 | 2.5 |
| | Diploma Advanced Certificate | 10 | 4.2 |
| | Bachelor's Degree | 33 | 13.9 |
| | Post-graduate Diploma | 52 | 21.9 |
| | Bachelor's Honour's Degree | 72 | 30.4 |
| | Master's Degree | 55 | 23.2 |
| | Doctoral Degree | 9 | 3.8 |
| | Total | 237 | 100.0 |
| Field of study | | | |
| | Accounting and Finance | 20 | 8.4 |
| | Business and Management | 44 | 18.6 |
| | Economics | 4 | 1.7 |
| | Humanities and Social science | 16 | 6.8 |
| | Information Technology | 7 | 3.0 |
| | Maths, science and agriculture | 49 | 20.7 |
| | Engineering | 74 | 31.2 |
| | Legal Services | 4 | 1.7 |
| | Health sciences | 7 | 3.0 |
| | Marketing and communication | 10 | 4.2 |
| | Education | 2 | .8 |
| | Total | 237 | 100.0 |
| Professional activity | | | |
| | Only studying | 3 | 1.3 |
| | Studying and working for a company | 117 | 49.4 |

| | | | |
|--|--|------------|--------------|
| | Studying and running my own business | 7 | 3.0 |
| | Studying and looking for a job | 4 | 1.7 |
| | Working and not studying | 58 | 24.5 |
| | Working and have a side hustle | 34 | 14.3 |
| | Unemployed | 2 | .8 |
| | Running a business | 10 | 4.2 |
| | Hustling | 1 | .4 |
| | Working for a company, studying and have a side hustle | 1 | .4 |
| | Total | 237 | 100.0 |
| Exposure to entrepreneurship | Yes | 130 | 54.9 |
| | No | 107 | 45.1 |
| | Total | 237 | 100.0 |
| Entrepreneurship education | Yes | 54 | 22.8 |
| | No | 183 | 77.2 |
| | Total | 237 | 100.0 |
| Highest Qualification | In progress | 4 | 1.7 |
| | 2018 - 2022 | 121 | 51.1 |
| | 2007 - 2017 | 102 | 43.0 |
| | 1992 - 2006 | 10 | 4.2 |
| | Total | 237 | 100.0 |
| Social projects | Yes | 134 | 56.5 |
| | No | 84 | 35.4 |
| | Unsure | 19 | 8.0 |
| | Total | 237 | 100.0 |
| With funds, start a social enterprise | Yes | 187 | 78.9 |
| | No | 16 | 6.8 |
| | Unsure | 34 | 14.3 |
| | Total | 237 | 100.0 |
| Prefer help activities | Yes | 215 | 90.7 |
| | No | 7 | 3.0 |
| | Unsure | 15 | 6.3 |
| | Total | 237 | 100.0 |
| Social Responsibility Code | Yes | 110 | 46.4 |
| | No | 97 | 40.9 |
| | Unsure | 30 | 12.7 |

5.3.2.1. Age

The respondents were of varying ages, and the age distribution was considered in designing the questionnaire. The age groups were categorised into groups ten years apart, beginning from 18 years upwards (59.9% shown in **Error! Reference source not found.**, of all the 237 respondents (59.9%, ages 29 – 38-year-old had the majority

(59.9%). This was followed by the 39 - 48-year-old age group with 25.7% and the smallest group over 49 years old at 3.4%.

5.3.2.2. Gender

Even though the questionnaire provided three gender options, namely, male, female, and preferred other groups, the respondents selected only two, and the frequency for both is shown below. Females were at the highest at (60.8 %) and males at 39.2 %.

5.3.2.3. Education

All respondents involved in the study had a university qualification. Most respondents (30.4%) had a bachelor's or an honours degree (30.4%) as their highest qualification. This was followed by respondents with a Master's degree (23.2%), followed by respondents with a post-graduate diploma. The least number of respondents were those with a doctoral degree, at 3.8 %. **Error! Reference source not found.** illustrates the education levels of all the respondents.

5.3.2.4. Field of study

Most of the respondents were in the engineering field, with a percentage of 31.2%, followed by maths, science and agriculture at 20.7%, closely followed by the business and management fields at 18.36%. The field of study with the least respondents was education, with 0.8%.

5.3.2.5. Type of current professional activity

Almost half of the respondents studied and worked for a company (49.4%). This was followed by respondents who were working and not studying at 24.5%. Among the least were those who were hustling at 0.4%, and those working for a company, studying while working on their side hustle at 0.4%. Only 4.2% were running their own business, and only 3.0% of the respondents were studying and running their own businesses at the same time.

5.3.2.6. Previous exposure to entrepreneurship

Out of the respondents, 54.9% had no previous entrepreneurial exposure, and 45.1% of the respondents were exposed to entrepreneurship at some point in their lives.

5.3.2.7. Have received entrepreneurship-specific education

Most respondents (77.2%) exhibited that they had received entrepreneurial education before, and only 22.8% of the respondents indicated that they had not received entrepreneurial education before.

5.3.2.8. When the highest qualification was completed

Error! Reference source not found. showed when the respondents completed their highest qualification. The highest qualification completion varied from 1992 to 2022, providing a vast range. This table shows that most of the respondents completed their highest qualification within the years 2018 – 2022 (51.1%). Closely followed by respondents who completed their highest qualification between 2007 – 2017 (43.0%).

5.3.2.9. Been involved in social projects

Out of all the respondents received, 56.5% were previously involved in projects that offer social value. 35.5% of the respondents had not been involved in social projects before. Out of the 237% sample, 8.0% of the respondents were unsure if they had ever been involved in social projects.

5.3.2.10. If funds were available, would initiate a social enterprise

Of all the 237 respondents, 78.9% would want to venture into a social enterprise should they have access to the required funds. 14.3% of the respondents were unsure if they would initiate a social enterprise if funds to do so were available to them. Only 6.8% would not initiate a social enterprise even if the funds to do so were available.

5.3.2.11. Prefer to be involved in activities that help others

From Table 2, most of the respondents, 90.7%, prefer to be involved in activities that help others. Whereas 3.0% of the respondents would not prefer to engage in activities that help others, and only 6.3% were unsure whether or not they preferred activities that help others.

5.3.2.12. Integrated a social responsibility component into business

Regarding whether respondents have integrated social responsibility into the companies they work for, in their businesses or study careers, it was a close one, with 46.4% of the respondents saying yes and 40.9% of the respondents said no. Only 12.7% of the respondents were not sure if they have integrated social responsibility or not.

5.4. Statistical analysis

5.4.1. Outlier testing

A box plot test was conducted to check for outliers in the data test; three outliers were identified from the social entrepreneurial intention variable from respondents 47, 54 and 68. There were no outliers identified on the attitude and perceived behavioural control variables. The most outliers were identified on the subjective norm with six outliers, on respondents 55, 85, 163, 188, 197 and 235. Moreover, entrepreneurial self-efficacy only had one outlier, with respondent 47. Nonetheless, the box plot results also showed that all the identified outliers were insignificant. Box plot results are shown in Appendix C.

5.4.2. Normality testing

To conduct the analyses and test the hypotheses presented in Chapter 3, the questionnaire items were grouped into relevant constructs to conduct descriptive statistical analysis. Social entrepreneurial intention (SEI), antecedents of intention attitude (AIA), antecedents of intention subjective norms (AISN), antecedents of intention perceived behavioural control (AIPB), and the moderator entrepreneurial self-efficacy (ESE) were analysed. The Likert scale measurement indicators, ranging from 1

to 5 (strongly disagree), were used for the descriptive statistical analysis. The results are shown in **Error! Reference source not found.** below.

Table 3: Descriptive statistics for Likert scale variables

| Descriptive Statistics | | | | | | | | |
|--|-----------|-----|-----------|------------|----------------|-----------|-----------|-----------|
| | Statistic | N | Mean | | Std. Deviation | Variance | Skewness | Kurtosis |
| | | | Statistic | Std. Error | Statistic | Statistic | Statistic | Statistic |
| I am ready to do anything to be a social entrepreneur | SEI1 | 237 | 3.68 | .077 | 1.178 | 1.388 | -.389 | -.864 |
| My professional goal is to be a social entrepreneur | SEI2 | 237 | 3.15 | .084 | 1.295 | 1.677 | -.042 | -1.034 |
| I will make every effort to start and run my own social enterprise | SEI3 | 237 | 3.35 | .081 | 1.245 | 1.549 | -.216 | -1.020 |
| I am determined to create a firm in the future | SEI4 | 237 | 4.42 | .061 | .943 | .889 | -1.761 | 2.721 |
| I have very seriously thought of starting a business | SEI5 | 237 | 4.39 | .065 | .996 | .993 | -1.748 | 2.453 |
| I have a firm intention to start a company someday | SEI6 | 237 | 4.42 | .064 | .991 | .982 | -1.734 | 2.260 |
| Being an entrepreneur implies more advantages than disadvantages to me | AIA1 | 237 | 3.72 | .073 | 1.119 | 1.253 | -.530 | -.365 |
| A career as an entrepreneur is attractive to me | AIA2 | 237 | 3.57 | .078 | 1.200 | 1.441 | -.454 | -.742 |
| If I had the opportunity and resources, I'd like to start a business. | AIA3 | 237 | 4.55 | .056 | .865 | .748 | -2.402 | 6.088 |
| Being a social entrepreneur would entail great satisfaction for me | AIA4 | 237 | 3.94 | .073 | 1.116 | 1.246 | -.667 | -.538 |
| Among various options, I would rather be an entrepreneur | AIA5 | 237 | 3.40 | .083 | 1.270 | 1.613 | -.267 | -.948 |
| If I decided to create a business, my closest family would approve of that decision | AISN1 | 237 | 4.10 | .074 | 1.144 | 1.308 | -1.271 | .857 |
| If I decided to create a business, my closest friends would approve of that decision | AISN2 | 237 | 4.17 | .065 | .994 | .988 | -1.284 | 1.408 |
| If I decided to create a firm, colleagues and friends important to me would approve of that decision | AISN3 | 237 | 3.98 | .068 | 1.054 | 1.110 | -.931 | .364 |
| If I decided to create a business, teachers and lecturers who are important to me would approve of that decision | AISN4 | 237 | 3.84 | .072 | 1.116 | 1.245 | -.657 | -.254 |
| To start a business and keep it working would be easy for me | AIPB1 | 237 | 2.95 | .072 | 1.101 | 1.213 | -.025 | -.616 |
| I can control the creation process of a new business. | AIPB2 | 237 | 3.64 | .069 | 1.067 | 1.138 | -.448 | -.415 |
| I know the necessary practical details to start a firm | AIPB3 | 237 | 3.64 | .075 | 1.162 | 1.351 | -.467 | -.721 |
| I know how to develop an entrepreneurial project | AIPB4 | 237 | 3.25 | .076 | 1.169 | 1.366 | -.207 | -.733 |
| If I tried to start a business, I would have a high probability of succeeding | AIPB5 | 237 | 3.61 | .062 | .948 | .900 | -.115 | -.637 |
| To start a business and keep it working would be easy for me | ESE1 | 237 | 3.12 | .066 | 1.010 | 1.020 | .010 | -.403 |
| I am prepared to start a viable business | ESE2 | 237 | 3.98 | .069 | 1.059 | 1.122 | -.906 | .118 |

| | | | | | | | | |
|---|-------------|-----|------|------|------|------|-------|-------|
| As an entrepreneur, I would have sufficient control over my business | ESE3 | 237 | 4.03 | .058 | .887 | .787 | -.673 | -.064 |
| If I tried to start a firm, I would have a high probability of succeeding | ESE4 | 237 | 3.68 | .062 | .959 | .921 | -.374 | -.155 |
| I show great aptitude for creativity and innovation | ESE5 | 237 | 3.89 | .063 | .974 | .949 | -.629 | -.067 |
| I show great aptitude for leadership and problem-solving | ESE6 | 237 | 4.29 | .052 | .800 | .639 | -.875 | .006 |
| I can develop and maintain favourable relationships with potential investors | ESE7 | 237 | 4.05 | .059 | .910 | .828 | -.645 | -.451 |
| I can see new market opportunities for new products and services | ESE8 | 237 | 3.83 | .061 | .934 | .872 | -.309 | -.829 |
| I can develop a working environment that encourages people to try out something New | ESE9 | 237 | 4.23 | .055 | .839 | .704 | -.634 | -.813 |
| Valid N (listwise) | | 237 | | | | | | |

A normality test was undertaken to establish if the data set was normally distributed. For this purpose, the researcher considered Skewness, kurtosis and Quantile-Quantile (Q-Q) plots. The skewness and the kurtosis values of each item and the Q-Q plot per construct are given. The outcome showed an acceptable skewness of below +/- 2 for all questions except one question AIA3 (*If I had the opportunity and resources, 'I would like to start a business*). The standard deviation variability was low for all constructs, indicating that the values were close to the mean. This is shown in Table 3 above, and a more detailed report on the normality test is displayed in Appendix C.

The kurtosis values, which is a measure of the distribution peak in contrast to a normal distribution, were within the appropriate range of +10 to -10, according to (Hair et al., 2019), with values ranging within the +/-2 except for AIA3 (*If I had the opportunity and resources, 'I'd like to start a business*).

A Quantile-Quantile (Q-Q) plot was conducted to determine if the data set might be approximated through statistical distribution. Q-Q plot showed appropriate normal distribution. Refer to Appendix D for all Q-Q plots. Subjective norms had the most insignificant outliers, and the Q-Q plot shows the outliers from the lower part of the graph.

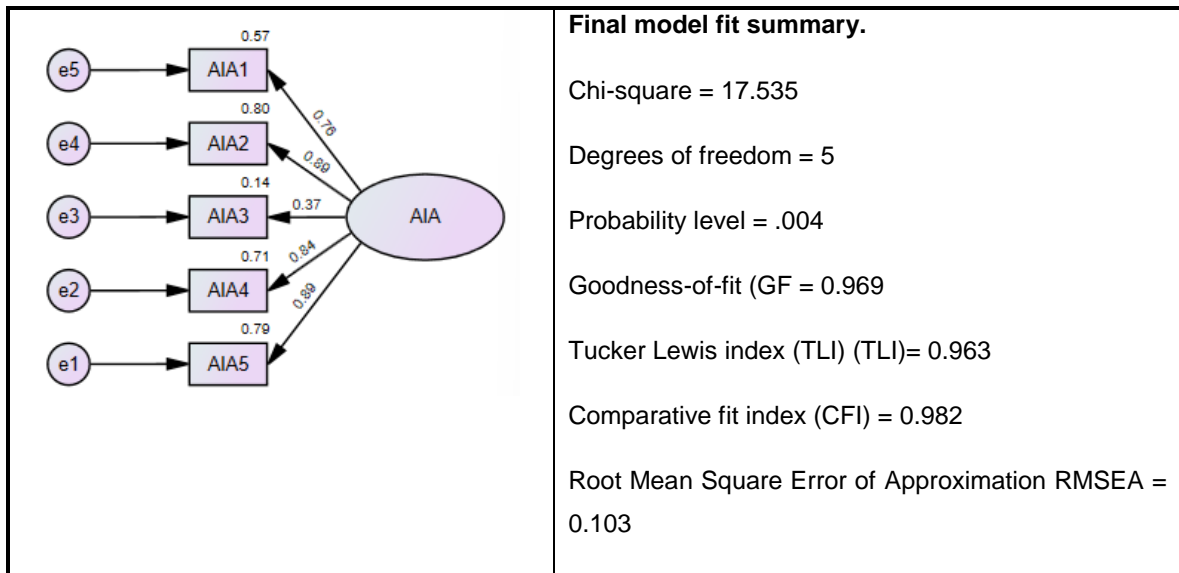
5.4.3. Confirmatory factor analysis

A summary of the findings of the CFA of all the constructs used in the study is provided below. The first step in this analysis is to present a visual CFA model which displays the squared multiple correlations, factor loadings, and covariances among factors of the measurement indicators. The model fit statistics are tabulated against threshold values.

When constructing the CFA measurement model in AMOS the convergent validity was depicted for all the standardised factor loadings. All variables were considered independent in order to compute covariance. Each of the factor covariances was less than 0.8, except for the covariance between perceived behavioural control (AIPB) and ESE.

A CFA model was generated on attitude as one of the antecedents of intention to determine if the measurement items on the scale would load. See **Error! Reference source not found.** below. Figure 3 indicates a good factor loading for all the indicators except for AIA3. The item AIA3 under the construct AIA (attitude) has a factor loading lower than 0.6 (AIA3 = 0.42). According to (Fornell & Larcker, 1981), a factor loading of 0.6 or less indicates poor loading into that factor, thus compromising the model fit.

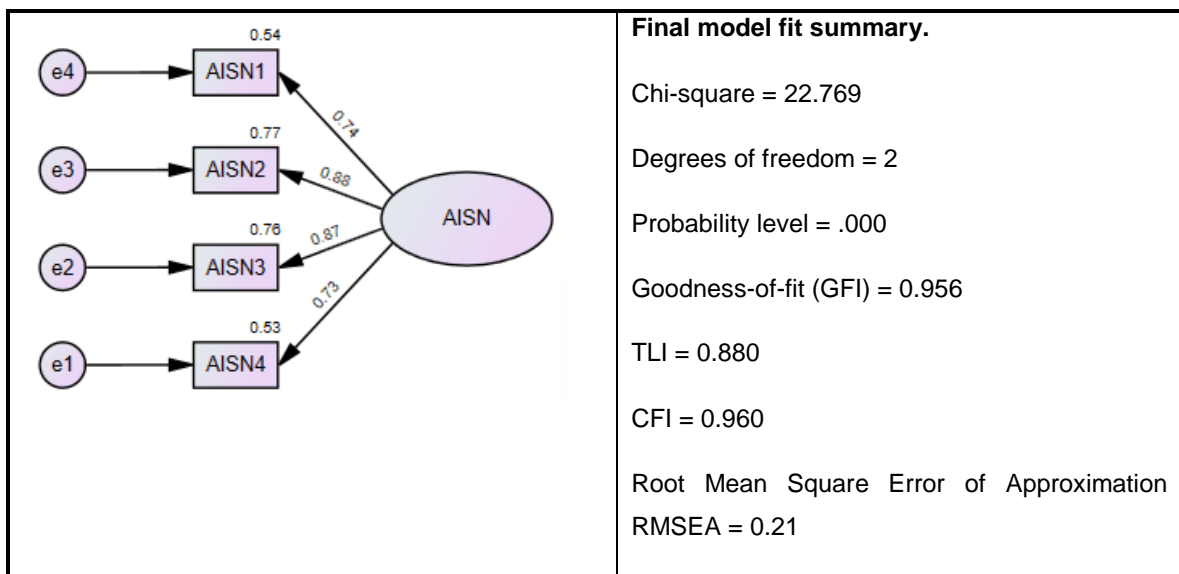
Figure 6: CFA for antecedents of intention, attitude showing standardised estimates



Error! Reference source not found. below shows a CFA model fit for only the intention of antecedent, subjective norms. From this, it is clear that all four items under the antecedent of intention, subjective norms constructs have a factor loading greater than 0.7. This supports a good factor loading into all four items, thus indicating a good factor loading. In addition, the Goodness-of-fit index (GFI) and CFI are above 0.90 (0.956 and 0.960 respectively), supporting a good model fit. The TLI on the other hand,

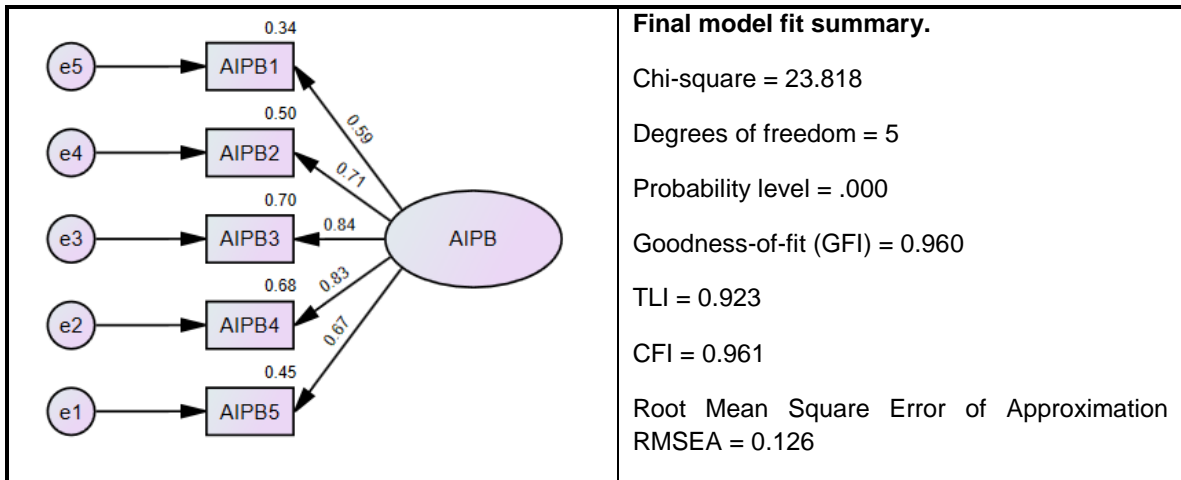
is below 0.880, which is below but not so far off the 0.90 thresholds. In addition, the RMSEA value is above the 0.10 threshold.

Figure 7: CFA for antecedents of intention, subjective norms showing standardised estimates



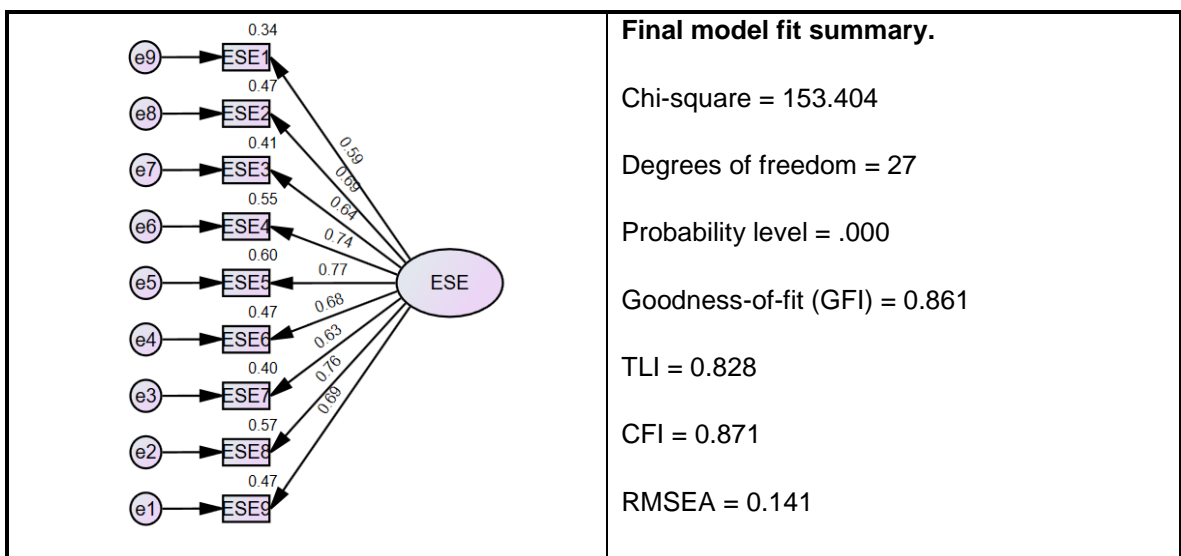
Error! Reference source not found. shows a CFA model fit for only the antecedent of intention, perceived behavioural control. From the figure, it can be seen that all the five items under this construct have excellent factor loadings that are greater than 0.7, which indicates good factor loading, except for one item, AIPB1, which indicated a factor loading of 0.59. However, the model fit indices GFI, TLI, and CFI are all above 0.9, thus indicating a good model fit. In contrast, the RMSEA value is 0.126, slightly above the 0.05 and 0.10 threshold for a good model fit.

Figure 8: CFA for antecedents of intention, perceived behavioural control showing standardised estimates



Error! Reference source not found. represents the CFA model for the moderator, ESE. All the factor loadings for the nine items under the moderator were above 0.60, except for one, ESE1 (*To start a business and keep it working would be easy for me*), which is equal to 0.59. the probability level for the moderator CFA was 0.000. with a GFI equal to 0.861, a TLI value equal to 0.828 and a CFI value equal to 0.871. That said, most of the factor loadings for the ESE construct were reasonably low, ranging from 0.59 to 0.79.

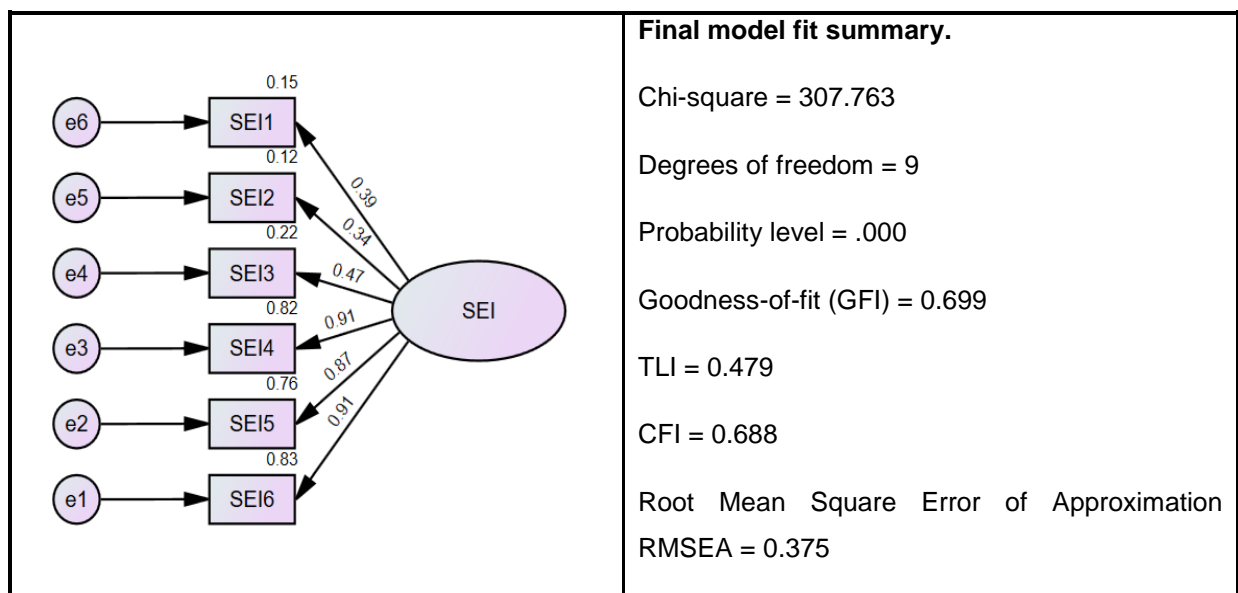
Figure 9: CFA for ESE showing standardised estimates



Error! Reference source not found. shows a CFA model fit for only the dependent variable, SEI. From this figure, it can be seen that only 3 of the six items fell under the social entrepreneurial intention construct, namely SEI4, SEI5, and SEI6. The other three items had poor factor loadings, SEI1 was 0.39 (*I am ready to do anything to be a social entrepreneur*), SEI2 was 0.34 (*My professional goal is to be a social entrepreneur*) and SEI3 was 0.47 (*I will make every effort to start and run my social enterprise*). The low model fit from the indices GFI, TLI, and CFI, all being below 0.9, also evidenced this. Additionally, the RMSEA value is also above 0.10. Thus, the model fit indices highlighted in **Error! Reference source not found.** all indicate that the model fit is poor when the three items SEI1, SEI2 and SEI3 are included.

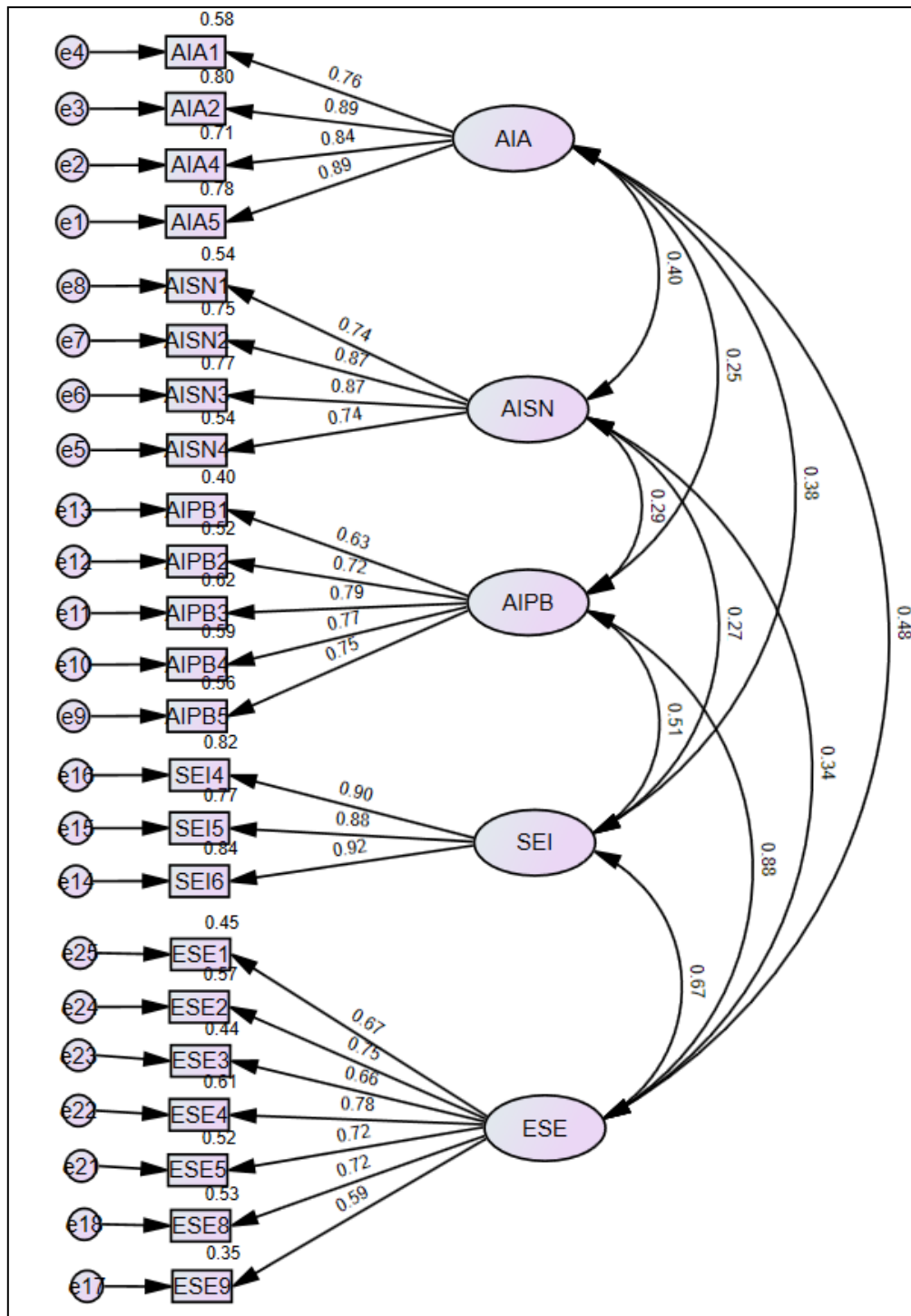
However, for the construct SEI, items SEI1 (equal to 0.39), SEI2 (equal to 0.34) and SEI3 (equal to 0.47) have a factor loading of less than 0.6. In light of this factor analysis outcome, the questions posed to the participants under the SEI construct were reviewed to check if any question could have been negatively coded. None of the questions under this construct was negatively coded. Therefore, to improve the factor loadings, these items had to be removed (Hair et al., 2019). That said, there is still an opportunity to modify the model in order to improve its validity.

Figure 10: CFA for social entrepreneurial intention showing standardised estimates



The model fit was improved by removing the items AIA3, SEI4, SEI5 and SEI6, ESE6 and ESE7. As illustrated in **Error! Reference source not found.**, at a high-level view of the revised CFA model, all standardised factor loadings for each measurement item are above 0.5 per the threshold (Hair et al., 2019). This supports the presence of convergent validity of the model. Moreover, the CFA model covariances between factors were mostly less than 0.8, supporting that the model is discriminately valid. Only the covariance between AIPB and ESE did not indicate the presence of discriminate validity, as the covariance was above the 0.8 thresholds (equal to 0.88).

Figure 11: *CFA measurement model fit showing standardised estimates*



Error! Reference source not found. below indicates the model fit indices for each of the constructs. With these measurement indices, one can deduce whether the theory proposed in this study is represented by the data gathered. A CFA is useful in confirming

that the theory is indeed determined by the observed covariance matrix (Zikmund et al., 2013).

Model fit indices determine the level to which the model fits by using absolute and comparative fit indices (Hair et al., 2019). The Table below summarises some of the model fit indices.

Table 4: CFA Absolute model fit indices

| | | |
|---|----------------------------------|------------------------|
| Chi-square = 600.523 | | |
| Degrees of freedom = 220 | | |
| Probability level = 0.000 | | |
| Indices | Appropriate threshold | Measured values |
| GFI | >0.90 | 0.825 |
| TLI | .90 | 0.878 |
| CFI | .90 | 0.894 |
| Root mean square error of approximation (RMSEA) | ,0.05 good; 0.05 – 0.10 adequate | 0.086 |

5.4.4. Construct Validity

Construct validity is one of the required tests to determine if an instrument has measured what it was intended to measure and is used to measure how the items measure the construct (Hair et al., 2019). To accomplish this, both convergent and discriminant validity were necessary. The CFA modelling generated standardised item factor loadings for each construct. These were used to calculate the AVE. When divided by the items number, this factor loading is equal to the sum of all squared standardised factor loadings implementing the method developed by Fornell & Larcker (1981). This is the sum of standardised lambda squared, the R² value for each item remaining for each construct. The obtained AVE values were equal to the convergent validity per construct. Moreover, the AVE values for each construct were squarely rooted to obtain the discriminant validity.

In the absence of evidence of measurement error, there may be doubts regarding the validity of indicators and constructs (Fornell & Larcker, 1981). In order to ensure convergent validity, the AVE was calculated and checked to see if it exceeds 0.5. To ensure convergent validity, factor loadings should be statistically significant and greater than 0.5 to obtain an AVE > 0.5 (Hair et al., 2019). Accordingly, factor loadings were

determined visually, using the model fit CFA diagram from AMOS estimates, as illustrated above in **Error! Reference source not found.**

All three measures are summarised in Table 6 below to indicate the AVE, convergent, and discriminant validity of each construct.

5.4.4.1. Convergent validity

Table 6 shows that the test results for convergent validity are based on the standardised loadings. A total of four items were identified (one from the perceived behavioural control, and the other three from ESE), which had standardised loadings less than the 0.7 thresholds. Among these were AIPB1 (Starting a business and keeping it working would be easy for me) at 0.629 and ESE9 (I can develop a working environment that encourages people to try something new) at 0.589. ESE3 (As an entrepreneur, I would have sufficient control over my business) at 0.662 and ESE1 (To start a business and keep it working would be easy for me) at 0.674.

Table 5: AVE for each construct using standardised regression weights

| | | Standardised Regression Weights | | |
|-------|---|----------------------------------|-----------------------|-----|
| Item | | Construct | Standardised loadings | AVE |
| AIA5 | ← | Attitude | 0.886 | 0.7 |
| AIA4 | ← | Attitude | 0.843 | |
| AIA2 | ← | Attitude | 0.892 | |
| AIA1 | ← | Attitude | 0.765 | |
| AISN4 | ← | Subjective norms | 0.736 | 0.7 |
| AISN3 | ← | Subjective norms | 0.875 | |
| AISN2 | ← | Subjective norms | 0.868 | |
| AISN1 | ← | Subjective norms | 0.736 | |
| AIPB5 | ← | Perceived behavioural control | 0.747 | 0.5 |
| AIPB4 | ← | Perceived behavioural control | 0.771 | |
| AIPB3 | ← | Perceived behavioural control | 0.788 | |
| AIPB2 | ← | Perceived behavioural control | 0.718 | |
| AIPB1 | ← | Perceived behavioural control | 0.629 | |
| SEI6 | ← | Social Entrepreneurial intention | 0.917 | 0.8 |
| SEI5 | ← | Social Entrepreneurial intention | 0.879 | |
| SEI4 | ← | Social Entrepreneurial intention | 0.904 | |
| ESE9 | ← | Entrepreneurial self-efficacy | 0.589 | 0.5 |
| ESE8 | ← | Entrepreneurial self-efficacy | 0.725 | |

| | | | | |
|------|---|-------------------------------|-------|--|
| ESE5 | ← | Entrepreneurial self-efficacy | 0.719 | |
| ESE4 | ← | Entrepreneurial self-efficacy | 0.780 | |
| ESE3 | ← | Entrepreneurial self-efficacy | 0.662 | |
| ESE2 | ← | Entrepreneurial self-efficacy | 0.753 | |
| ESE1 | ← | Entrepreneurial self-efficacy | 0.674 | |

The following Table represents the standardised regression loadings derived from the CFA model. For each construct, the AVE was calculated based on these loadings represented in **Error! Reference source not found.** It should be noted that, although there were three questions with low factor loadings, the AVE for each construct was at least 0.5, indicating that convergent validity had been established.

5.4.4.2. Discriminant validity

Discriminant validity helps to statistically determine if the unobserved latent variables are distinct from each other or are overlapping. It is a test for individual existence among latent variables and can be assessed through Fornell and Larcker criteria, cross-loadings and HTMT. Table 6 below illustrates the different results obtained using the Fornell-Larcker.

Table 6: *Discriminant validity using the Fornell-Larcker criterion test*

| A comparison of the square root of the AVE for each dimension | | | | | |
|---|--------------|------------------|-------------------------------|----------------------------------|-------------------------------|
| Item | Attitude | Subjective norms | Perceived behavioural control | Social Entrepreneurial intention | Entrepreneurial self-efficacy |
| Attitude | 0.866 | | | | |
| Subjective norms | 0.378 | 0.807 | | | |
| Perceived behavioural control | 0.254 | 0.288 | 0.733 | | |
| Social Entrepreneurial intention | 0.695 | 0.334 | 0.451 | 0.900 | |
| Entrepreneurial self-efficacy | 0.416 | 0.329 | 0.769 | 0.606 | 0.703 |

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

Error! Reference source not found. represents the square root of the AVE values for each construct highlighted. According to Fornell & Larcker (1981), for a construct, the

square root of the AVE is expected to be higher than the correlations. When comparing the square root of the AVE with the correlations, it is evident that, except for one instance, the square root of the AVE is greater than each of the correlations below. The one exception is the correlation between ESE and perceived behavioural control, which is 0.769, thus higher than 0.733. Nevertheless, according to Hair et al. (2019), discriminant validity is established if the square root of the AVE values exceeds a threshold of 0.7. In this instance, all values exceeded this threshold. Thus, discriminant validity was established.

5.4.5. Reliability

The internal consistency of the constructs determines the reliability of a study. This can be accomplished by evaluating whether variables align with what they are intended to measure. A construct's reliability is determined by its Cronbach's alpha (α) value and CR. A construct must have a Cronbach's alpha value greater than 0.7 to be considered reliable (Hair et al., 2019). The results reveal that SEI with three items had a Cronbach's alpha of 0.866. AIA, with four items, due to one item being excluded from the CFA, had a Cronbach's alpha of 0.909. AISN scale with four items had a Cronbach alpha of 0.871. AIPB control with five items had a Cronbach's alpha of 0.849. In comparison, ESE had nine items and attained a Cronbach's alpha of 0.888. **Error! Reference source not found.** below summarises the reliability results. The rest of the reliability results are presented in Appendix F.

Table 7: Reliability test

| Reliability Statistics | | | |
|--|------------------|--|------------|
| Constructs | Cronbach's alpha | Cronbach's alpha Based on Standardised Items | N of Items |
| Social Entrepreneurial intention | .866 | .866 | 3 |
| Antecedence: Attitude | .909 | .909 | 4 |
| Antecedence: Subjective Norms | .875 | .878 | 4 |
| Antecedence: Perceived behavioural intention | .849 | .849 | 5 |
| Entrepreneurial self-efficacy | .888 | .890 | 9 |

5.4.5.1. Composite reliability (CR)

The results below show the CR of each dimension being investigated in the study.

Table 8: *Composite reliability test*

| Construct | Composite reliability (CR) |
|----------------------------------|----------------------------|
| Attitude | 0.851 |
| Subjective norms | 0.881 |
| Perceived behavioural control | 0.852 |
| Social Entrepreneurial intention | 0.928 |
| Entrepreneurial self-efficacy | 0.872 |

All the composite values are well above the required threshold of 0.7 (Hair et al., 2019). This, therefore, indicates that CR has been established.

5.5. Hypothesis testing

A regression analysis was performed to assess the contribution of the antecedent of intention to social entrepreneurial intention and examine the roles of attitude, subjective norms, and perceived behavioural control as the sub-dimensions of social entrepreneurial intention. In addition, multiple regression can be used to determine how well the model fits the data (variance explained) and what role each predictor plays in explaining the variance explained. This was elevated by how the abovementioned individual relationships of these antecedents on the intention on social entrepreneurial intention are moderated by entrepreneurial self-efficacy.

5.5.1. Hypothesis 1a: Attitude towards social entrepreneurship has a positive impact on social entrepreneurial intention

Multiple regression was performed to predict social entrepreneurial intention from attitude as one of the antecedents of intention. Table 9 shows *model a*, which represents the relationship between attitude and social entrepreneurial intention. This indicates that the predictor variable statistically significantly interacted with the dependent variable (social entrepreneurial intention) with an R-value of 0.695, representing the multiple

correlation coefficient. The p-value in multiple regression help determines relationship is significant or not; with a $p < 0.001$, the relationship between attitude and the social entrepreneurial intention was found to be significant. This indicates that there is 48.1% of the total variability in social entrepreneurial intention is explained by attitude. This coefficient of determination is also known as the correlation coefficient squared (R^2).

The attitude towards social entrepreneurial intentions was also examined by using an ANOVA test. Based on the F ratio, this test provides an overall assessment of model fit (Hair et al., 2019). An ANOVA test presented in Table 9 indicates that the sum of squares and mean square are 78.125, and the F-test is 206.644. It is shown that the p-value is less than 0.05, indicating that the model has explanatory significance. Using the ANOVA procedure, comparisons are conducted between comparison groups. Therefore, the results indicated that attitude significantly impacts social entrepreneurial intention. The residual value, which provides information on how the actual data deviates from the best-fit regression line, is 86.324, indicating that, on average, the model poorly predicts by 86 points which is high.

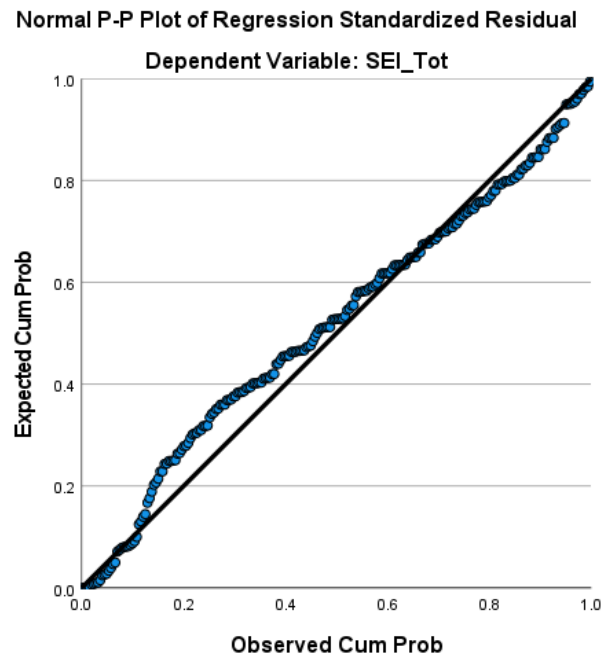
Moreover, Table 9 shows a positive relationship between the independent attitude and social entrepreneurial intention through the coefficients. As a result, an increase in post-graduates attitudes will result in a higher attitude towards social entrepreneurship will increase their social entrepreneurial intention. This is if all the other independent variables remain constant. According to the model, the unstandardised coefficients provide the degree of association of social entrepreneurial intention by the antecedents of intention is 0.684. The variance inflation factor (VIF) is a measure of the variance of the multiple regression coefficients, which is owing to the effect of attitude towards behaviour as the independent variable being correlated. Data with a VIF equal to, or exceeding 10 exhibits multiple connections between them (Aydogmus, 2021). However, there are no multiple connections between attitude and social entrepreneurial intention as the VIF is 1.000, which is less than 10. Furthermore, the tolerance was 1.000, which is less than or equal to 1.00, therefore supporting the assumption that there are no multicollinearities between the attitude and social entrepreneurial intention relationship.

Table 9: Multiple regression model summary for attitude

| Model Summary | | | | | | | | | |
|---|------------|-----------------------------|-------------------|----------------------------|-------------|----------|-------------------------|-------|--------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square | F Change | df1 | df2 | Sig. F |
| 1 | 0.695a | 0.483 | 0.481 | 0.60608 | 0.483 | 219.544 | 1 | 235 | <.001 |
| a. Predictors: (Constant), Attitude_Tot | | | | | | | | | |
| ANOVA ^a | | | | | | | | | |
| Model | | | Sum of | df | Mean Square | F | Sig. | | |
| 1 | Regression | | 80.646 | 235 | 80.646 | 219.544 | <.001b | | |
| | Residual | | 86.324 | 235 | 0.367 | | | | |
| | Total | | 166.97 | 236 | | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |
| b. Predictors: (Constant), Attitude | | | | | | | | | |
| Coefficients | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | VIF | |
| | | B | Std. Error | Beta | | | Tolerance | | |
| 1 | (Constant) | 1.853 | 0.144 | | 12.898 | <.001 | | | |
| | Attitude | 0.56 | 0.038 | 0.695 | 14.817 | <.001 | 1.000 | 1.000 | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |

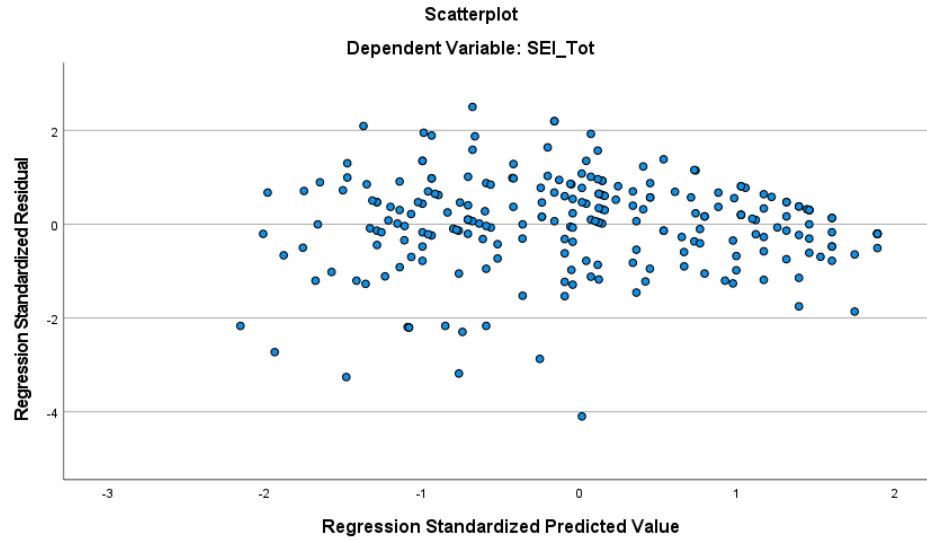
When comparing an analytical distribution with a model-based weighted distribution function, a Probability-Probability (P-P) plot was used. Based on the probability-probability plot in Figure 12 below, it can be seen that the points generally follow the diagonal line. However, at the lower part of the P-P plot, some skewness was observed in the data. This supports the presents of insignificant outliers observed in section 5.4.1. However, most data is represented in the diagonal line, indicating barely any normality and linear-related data discrepancies.

Figure 12: *P-P plot of regression*



Similarly below, Figure 13 illustrates the scatter plot. This shows that most of the data points are scattered within the centre of the plot, with few points outside that range, Therefore, emphasising that the data has no normality and linearity associated issues.

Figure 13: *Scatterplot of standardised residual against the attitude*



5.5.2. Hypothesis 1b: Subjective norms have a positive impact on social entrepreneurship intention

Multiple regression was performed to predict social entrepreneurial intention from subjective norms as one of the antecedents of intention. Table 10 shows model a, which represents the relationship between subjective norms and social entrepreneurial intention. A multivariate correlation coefficient of 0.334 indicates a statistically significant interaction between the predictor and the dependent variable (social entrepreneurial intention). P-values are used in multiple regression analyses to determine whether the relationship is significant. There was a significant relation between subjective norms and social entrepreneurial intention with a p-value of 0.001. Consequently, 10.8% of the total variability in social entrepreneurial intentions can be accounted for by subjective norms.

In addition, an ANOVA test was used to examine subjective norms regarding social entrepreneurial intentions. As shown in Table 10, the sum of squares and mean square are 18.634, and the F-test is 29.521. Accordingly, the p-value of the model is less than 0.001, indicating that it has significance. Therefore, the results indicated that subjective norms significantly impact social entrepreneurial intention. The residual value, which provides information on how the actual data deviates from the best-fit regression line, is 148.336, indicating that, on average, the model poorly predicts by 148 points which is high.

Table 10: Multiple regression model summary for subjective norms

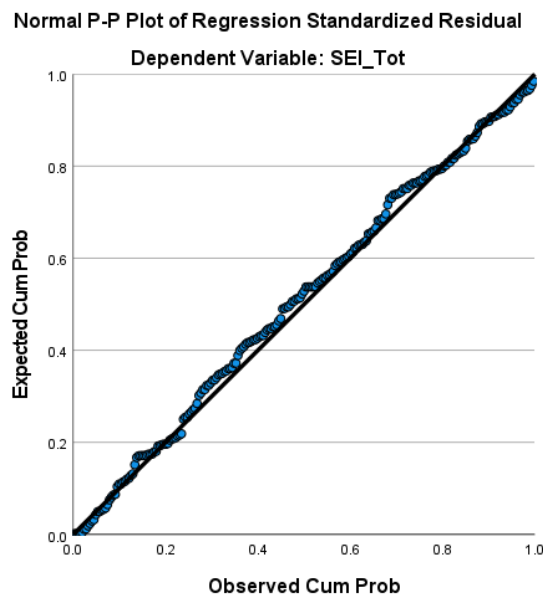
| Model Summary | | | | | | | | | | |
|---|------------|-----------------------------|-------------------|----------------------------|-----------------|-------------------|-------------------------|--------|---------------|--|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | Sig. F Change | |
| | | | | | | F Change | df1 | df2 | | |
| 1 | .334a | 0.112 | 0.108 | 0.79449 | 0.112 | 29.521 | 1 | 235 | <.001 | |
| a. Predictors: (Constant), SubNorm_Tot | | | | | | | | | | |
| ANOVA ^a | | | | | | | | | | |
| Model | | | | Sum of Squares | df | Mean Square | F | Sig. | | |
| 1 | Regression | | | | 18.634 | 1 | 18.634 | 29.521 | <.001b | |
| | Residual | | | | 148.336 | 235 | 0.631 | | | |
| | Total | | | | 166.97 | 236 | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | | |
| b. Predictors: (Constant), subjective norms | | | | | | | | | | |
| Coefficients | | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | | | |
| | | B | Std. Error | Beta | | | Tolerance | VIF | | |
| 1 | (Constant) | 2.671 | 0.232 | | 11.513 | <.001 | | | | |
| | Attitude | 0.306 | 0.056 | 0.334 | 5.433 | <.001 | 1.000 | 1.000 | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | | |

Furthermore, Table 10 shows that intentions to engage in social entrepreneurship positively relate to subjective norms. Therefore, a higher subjective norm about participating in a social enterprise will be associated with a higher intention to do so. Assuming that all other independent variables remain constant, according to the unstandardised coefficients, as subjective norms increase by one unit, the social

entrepreneurial intention will change by 0.306. As a result, subjective norms are statistically significant in predicting social entrepreneurial intentions.

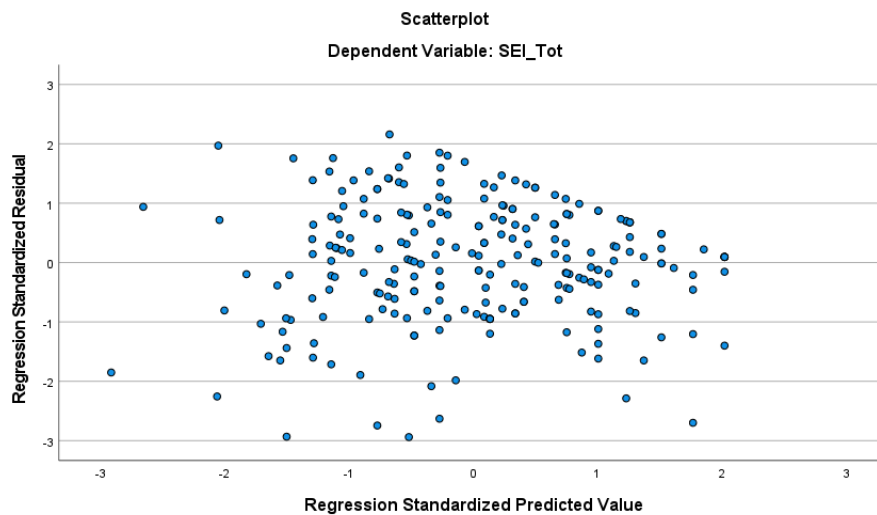
As the independent variable is correlated with subjective norms, the variance in the multiple regression coefficients can be calculated using the VIF value. There is multicollinearity between the date when the VIF is 10 or higher (Aydogmus, 2021). Nonetheless, there is no evidence of multiple connections between subjective norms and social entrepreneurial intention, as the VIF = (1.000) is less than 10. The tolerance was also 1.000, which is less than or equal to 1.00. Therefore, supporting the assumption that there are no multicollinearities.

Figure 14: *P-P plot of regression with subjective norms*



One of the assumptions made in the study was that the homoscedastic data was tested using the regression standardisation scatterplot, as presented in Figure 14. Probability-Probability (P-P) plots were used to compare empirical and theoretical cumulative distribution functions. As can be seen from the P-P plot in Figure 11, the points generally follow the diagonal line. A small amount of skewness was observed in the data at the lower end of the P-P plot. Accordingly, the presence of insignificant outliers was supported by section 5.4.1.

Figure 15: *Regression standardisation scatterplot for subjective norms*



One of the assumptions made in the study was that the A regression standardisation scatterplot was used to examine the homoscedasticity of the data, as displayed in Figure 14.

Similarly, Figure 15 shows the scatter plot. As can be seen, the majority of the data points are clustered in the centre of the plot, with only a few points outside of this area. In light of this, it is essential to emphasise that the data has retained its random pattern. Therefore, the test supports the assumption that the data was homoscedastic.

5.5.3. Hypothesis 1c: Perceived behavioural control has a positive impact on social entrepreneurship intention

A multiple regression analysis was conducted based on perceived behavioural control as a one of the social entrepreneurial intention antecedents. As shown in Table 11, model A represents the relationship between perceived behavioural control and social entrepreneurial intentions. There is a statistically significant interaction between the predictor variable (social entrepreneurial intention) and the dependent variable (multivariate correlation coefficient of 0.451). In multiple regression analyses, p-values are utilised to evaluate the significance of a relationship. Statistically, there was a significant relationship between perceived behavioural control and social entrepreneurial intent. Therefore, perceived behavioural control explains 20.0% of the

total variability in social entrepreneurial intentions. The residual value, which provides information on how the actual data deviates from the best-fit regression, is 133.047, indicating that, on average, the model poorly predicts by 133 points which are regarded as high.

Additionally, an ANOVA test was conducted to examine perceived behavioural control in relation to social entrepreneurial intentions. The sum of squares and mean square in Table 11 are both 33.923, and the F-test is 59.918. Consequently, the model has a p-value less than 0.001, illustrated that it is significant. As a result, the social entrepreneurial intention is significantly influenced by perceived behavioural control.

Table 11: Multiple regression model summary for perceived behavioural control

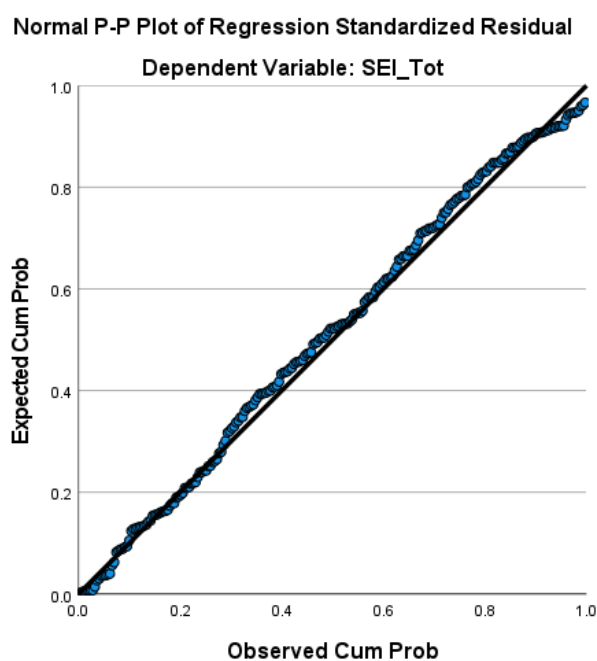
| Model Summary | | | | | | | | | |
|---|-------------------------------|-----------------------------|-------------------|----------------------------|-------------------|----------|-------------------------|-------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | 0.451a | 0.203 | 0.2 | 0.75243 | 0.203 | 59.918 | 1 | 235 | <.001 |
| a. Predictors: (Constant), PercBehC | | | | | | | | | |
| ANOVA ^a | | | | | | | | | |
| Model | | Sum of Squares | | df | Mean Square | F | Sig. | | |
| 1 | Regression | | 33.923 | 1 | 33.923 | 59.918 | <.001b | | |
| | Residual | | 133.047 | 235 | 0.566 | | | | |
| | Total | | 166.97 | 236 | | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |
| b. Predictors: (Constant), PercBehC | | | | | | | | | |
| Coefficients | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | | |
| | | B | Std. Error | Beta | | | Tolerance | VIF | |
| 1 | (Constant) | 2.398 | 0.200 | | 11.983 | <.001 | | | |
| | Perceived behavioural control | 0.44 | 0.057 | 0.451 | 7.741 | <.001 | 1.000 | 1.000 | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |

Table 11 shows that independent perceived behavioural control positively correlate with social entrepreneurial intention. The higher the perceived behavioural control regarding participation in a social enterprise, the greater is the likelihood of participation in a social enterprise. All other independent variables are assumed to remain constant. In accordance with the unstandardised coefficients, as perceived behavioural control

increases by one unit, the social entrepreneurial intention will increase by 0.440. Consequently, perceived behavioural control has statistical significance in predicting social entrepreneurial intentions. Therefore, this model predicts an increase in social entrepreneurial intention of 0.334 standard deviations for every one standard deviation increase in perceived behavioural control.

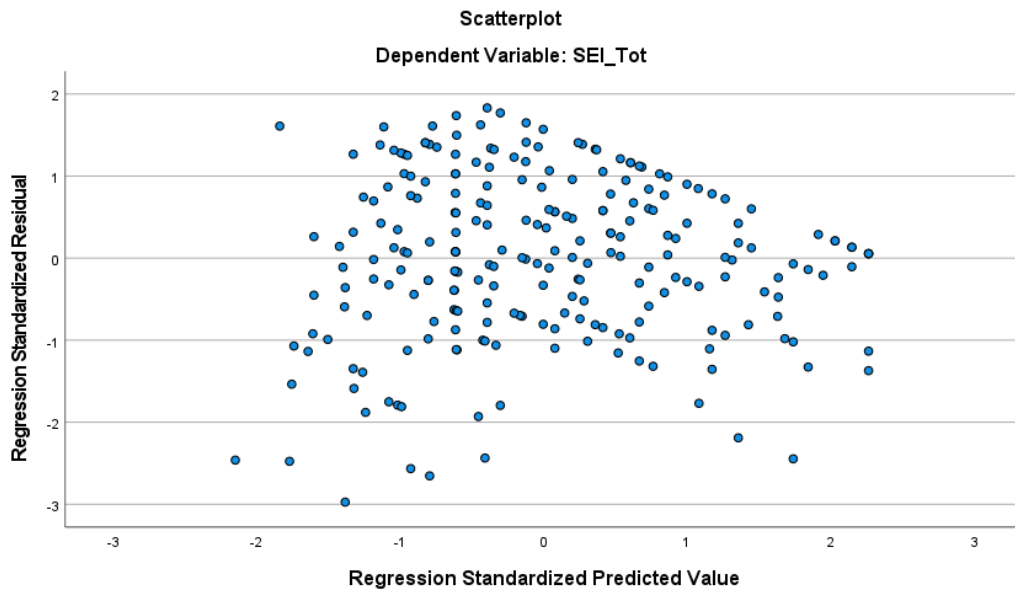
Based on the correlation between the independent variable and perceived behavioural control. The variance of the multiple regression coefficients was determined using the VIF value. When the VIF is 10.0 or higher, there is a high degree of multicollinearity between the data (Aydognmus, 2021). It should be noted, however, that there is no evidence of multiple connections between perceived behavioural control and social entrepreneurial intention, as the VIF = 1.000, which is less than 10.0. Furthermore, the tolerance was 1.000, which is less than or equal to 1.00, supporting the assumption that there are no multicollinearities.

Figure 16: Normal P-P plot of regression residual with perceived behavioural control



The empirical and theoretical cumulative distribution functions were compared using Probability-Probability (P-P) plots. According to Figure 16, the P-P plot generally follows the diagonal line, which is consistent with the results of the Q-Q plot in section 5.4.1, showing no outliers, and the normal data distribution confirms the assumption.

Figure 17: *Regression scatterplot for perceived behavioural control*



Similarly, Figure 17 illustrates the scatter plot. It is evident from the plot that the majority of data points lie at the centre, with only a few points located outside it. Considering this, it is imperative to emphasise that the data has neither normal nor linear issues as the data set is homoscedastic.

5.5.4. Hypothesis 2a: Entrepreneurial self-efficacy has a moderating effect on the relationship between attitude and social entrepreneurial intention

When analysing the role of the moderator in the relationship between attitude and SEI, Table 12 also shows *model b*, when the moderator, ESE, is introduced to the relationship. Here the outcome of introducing ESE to the three hypothesised relationships, 1a, 1b, and 1c, is represented. The moderator's role can either be to modify, strengthen or weaken the already existing relationships with SEI.

Table 12: *Multiple regression model summary for attitude with the moderator*

| Model Summary | | | | | | | | | |
|---|--------------------|-----------------------------|-------------------|----------------------------|-------------------|-------------|-------------------------|-------|--------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 2 | 0.761 ^b | 0.58 | 0.576 | 0.54752 | 0.097 | 53.962 | 1 | 234 | <.001 |
| b. Predictors: (Constant), Attitude_Tot, Integr_AIA_ESE | | | | | | | | | |
| ANOVA ^a | | | | | | | | | |
| Model | | | | Sum of Squares | df | Mean Square | F | | Sig. |
| 2 | | Regression | | 96.823 | 2 | 48.411 | 161.492 | | <.001 ^c |
| | | Residual | | 70.147 | 234 | 0.3 | | | |
| | | Total | | 166.97 | 236 | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |
| c. Predictors: (Constant), Attitude_Tot, Integr_AIA_ESE | | | | | | | | | |
| Coefficients | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | VIF | |
| | | B | Std. | Beta | | | Tolerance | | |
| 2 | (Constant) | 2.241 | 0.14 | | 15.994 | <.001 | | | |
| | Integr_AIA_ESE | 0.111 | 0.015 | 0.74 | 7.346 | <.001 | 0.177 | 5.648 | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |

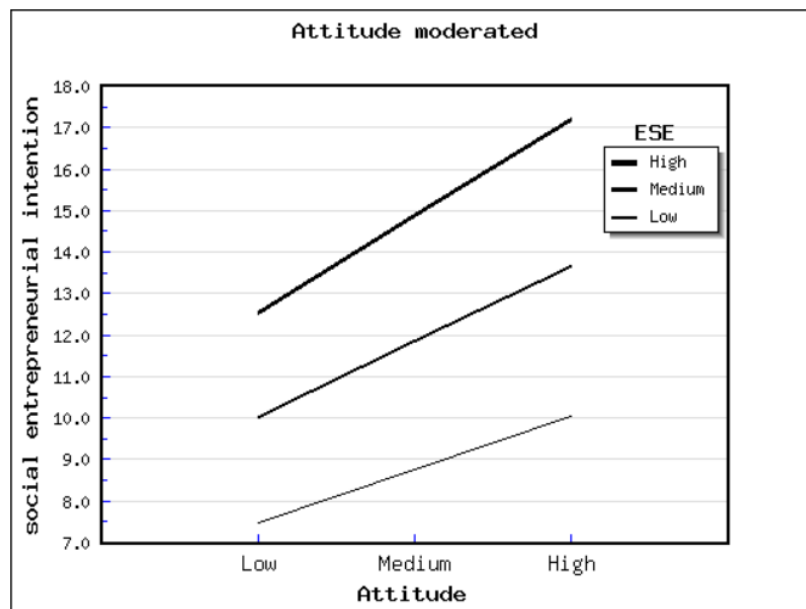
The moderator effect was determined to positively and significantly moderate the relationship between social entrepreneurial intention and attitude. The interaction effect was a p-value < 0.001. The interaction of the independent and moderator variable that was used to test the moderation effect, Table 12 below, shows the results of the moderating effect, which is represented by R and R² values that have increased due to this effect. The R² value increased from 0.481 to 0.576, reflecting a 9.5% direct change. The measured R-value also changed from 0.695 to 0.761, making it a 6.6% change in the multiple correlation coefficient.

The residual value, which provides information on how the actual data deviates from the best-fit regression line, is 70.147, indicating that, on average, the model poorly predicts by 70 high points. Whereas the beta values are $\beta = 0.74$ at a p < 0.001 was statistically significant, and a (t = 7.35). This indicated that entrepreneurial self-efficacy moderates the relationship between attitude and social entrepreneurial intention. Consequently, the overall model fit has improved for both of these measures.

The regression coefficient for the impact of the moderator on the relationship was assessed, and it was established that B = 0.111 and the beta weight is 0.740 indicating a substantial impact on the overall regression model. The coefficient is statistically significant. In order to know whether there were multiple correlations between the

variables, VIF values were computed and examined. A VIF value of 10 or greater indicates multicollinearity between the data (Aydogmus, 2021). This study indicated no multiple relationships between the variables, as evidenced by the VIF values obtained was 5.65, which meets the requirements. The tolerance value was less than 1 (0.177), which indicates support that the assumption of no multicollinearities in this moderated relationship.

Figure 18: *Entrepreneurial self-efficacy moderates attitude's effect on social entrepreneurial intention.*



The moderator findings are also confirmed in Figure 18, which shows the interaction where the social entrepreneurial intention is improved with high entrepreneurial self-efficacy.

5.5.5. Hypothesis 2b: Entrepreneurial self-efficacy has a moderating effect on the relationship between subjective norms and social entrepreneurial intention

Accordingly, Table 13 also illustrates *model b*, when the moderator, entrepreneurial self-efficacy, is introduced to the relationship between subjective norms and social entrepreneurial intention. Moderator effects were found to have positive and significant effects on the relationship of subjective norms with social entrepreneurial intention. There was a significant interaction effect with a p-value of 0.001. Moreover, the interaction of the independent and the moderator variable was used to assess the moderating role. Represented by its R-value, which changes from 0.334 to 0.610, which, in turn, represents a change of 6.6% at a significance of 0.001. The R² value was also increased to 0.372 due to this effect.

Table 13: Multiple regression model summary for subjective norms with the moderator

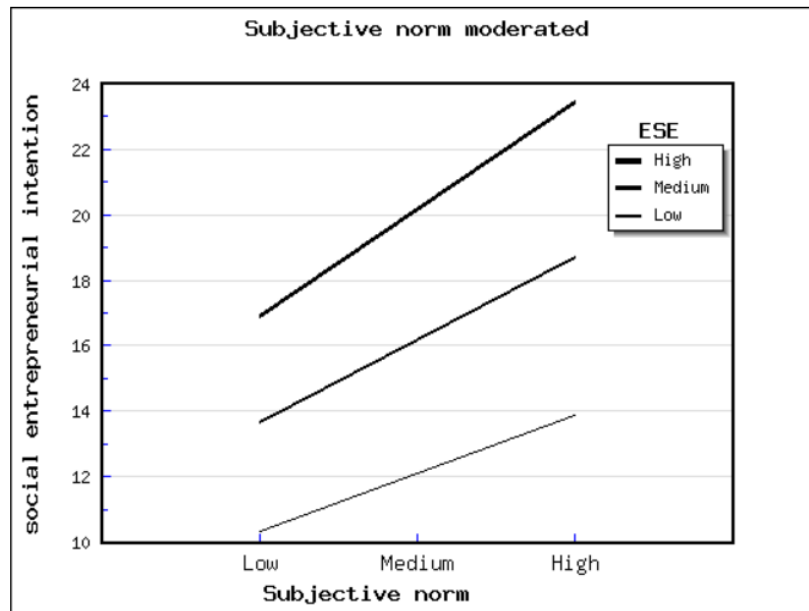
| Model Summary | | | | | | | | | |
|---|------------------|-----------------------------|-------------------|----------------------------|-----------------|----------|-------------------------|-------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 2 | 0.610b | 0.372 | 0.367 | 0.66943 | 0.26 | 97.001 | 1 | 234 | <.001 |
| b. Predictors: (Constant), SubNorm_Tot, Integr_SN_ESE | | | | | | | | | |
| ANOVA ^a | | | | | | | | | |
| Model | | | Sum of Squares | df | Mean Square | F | | | Sig. |
| 2 | | Regression | 62.104 | 2 | 31.052 | 69.291 | | | <.001c |
| | | Residual | 104.866 | 234 | 0.448 | | | | |
| | | Total | 166.97 | 236 | | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |
| c. Predictors: (Constant), SubNorm_Tot, Integr_SN_ESE | | | | | | | | | |
| Coefficients | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | VIF | |
| | | B | Std. Error | Beta | | | Tolerance | | |
| 2 | (Constant) | 3.224 | 0.203 | | 15.85 | <.001 | | | |
| | Subjective norms | -0.439 | 0.089 | -0.48 | -4.92 | <.001 | 0.282 | 3.545 | |
| | Integr_SN_ESE | 0.156 | 0.016 | 0.961 | 9.849 | <.001 | 0.282 | 3.545 | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |

Similarly, the beta value was $\beta = 0.961$, a significantly less than 0.001 was statistically significant, and a ($t = 9.849$). This indicated that entrepreneurial self-efficacy moderates the relationship between subjective norms on social entrepreneurial intention.

The residual value, which provides information on how the actual data deviates from the best-fit regression line, is 104.866, indicating that, on average, the model poorly predicts by 105 points which is high.

Consequently, the overall model fit has improved on both of these measures. The regression coefficient for the effect of the moderator on the relationship is 0.156, and the beta weight is 0.961 indicating the overall regression model is significantly affected by the moderator. The coefficient is statistically significant. In order to determine whether there were multiple connections between the variables, VIF values were calculated and examined. A VIF value of less than 10 indicates multiple connections between the data (Aydogmus, 2021). This study indicated no multiple relationships between the variables, as evidenced by the VIF values of 3.55. Furthermore, the tolerance was 0.282, which is less than, therefore supporting the assumption that there are no multicollinearities.

Figure 19: *Entrepreneurial self-efficacy influence on subjective norms with social entrepreneurial intention*



The moderator findings are also confirmed in Figure 16, which shows the interaction between subjective norms and entrepreneurial self-efficacy, where the presence of high entrepreneurial self-efficacy improves social entrepreneurial intention.

5.5.6. Hypothesis 2c: Entrepreneurial self-efficacy has a moderating effect on the relationship between perceived behavioural control and social entrepreneurial intention

Therefore, Table 14 also illustrates model b, which is the relationship between perceived behavioural control and social entrepreneurial intention when entrepreneurial self-efficacy is introduced as a moderator. The relationship was influenced by moderator effects, which were both significant and positive. With a p-value of 0.001, there was a significant interaction effect. As determined by the R-value, the interaction has a direct effect, which decreases by 17.4% from 0.440 to 0.178. The coefficients decreased from 0.440 to 0.178 once the moderator was introduced.

The residual value, which provides information on how the actual data deviates from the best-fit regression line, is 115.078, indicating that, on average, the model poorly predicts by 115 points, which is considered high.

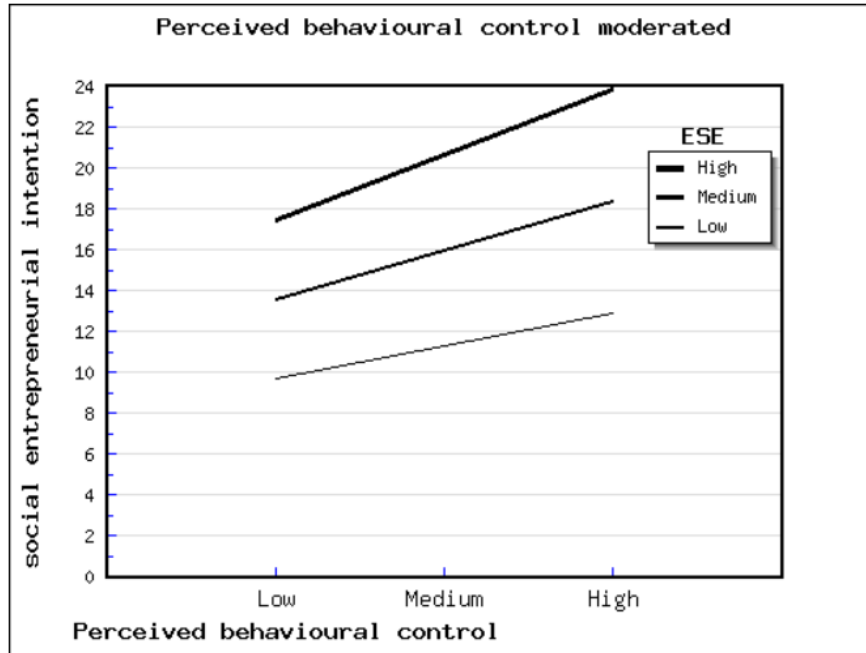
Table 14: Multiple regression model summary for perceived behavioural control with the moderator

| Model Summary | | | | | | | | | |
|---|-----------------------------|-----------------------------|-------------------|----------------------------|-------------------|----------|-------------------------|--------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 2 | 0.557b | 0.311 | 0.305 | 0.70128 | 0.108 | 36.538 | 1 | 234 | <.001 |
| b. Predictors: (Constant), PercBehC, Integr PBC ESE | | | | | | | | | |
| ANOVA ^a | | | | | | | | | |
| Model | | | Sum of Squares | df | Mean Square | F | | Sig. | |
| 2 | | Regression | 51.892 | 2 | 25.946 | 52.759 | | <.001c | |
| | | Residual | 115.078 | 234 | 0.492 | | | | |
| | | Total | 166.97 | 236 | | | | | |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |
| b. Predictors: (Constant), PercBehC, Integr PBC ESE | | | | | | | | | |
| Coefficients | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | | |
| | | B | Std. Error | Beta | | | Tolerance | VIF | |
| 2 | (Constant) | 3.594 | 0.272 | | 13.219 | <.001 | | | |
| | Perceived behavioural norms | -0.618 | 0.183 | -0.634 | -3.381 | <.001 | 0.084 | | 11.926 |
| | Integr_PBC_ESE | 0.178 | 0.029 | 1.133 | 6.045 | <.001 | 0.084 | | 11.926 |
| a. Dependent Variable: Social entrepreneurial intention | | | | | | | | | |

Similarly, the beta value was $\beta = 1.133$ at $\alpha = 0.001$, which was statistically significant, and a $t = 6.045$. For the purpose of determining whether multiple connections existed between the variables, VIF values were computed and examined. It is apparent from the VIF value of 11.926, which is greater than the required 10, that there are multicollinearities between the data (Aydogmus, 2021). Furthermore, the collinearity tolerance was 0.084, which is less than 1.00. Therefore, supporting the assumption that there are no multicollinearities. Overall, this indicated that entrepreneurial self-efficacy moderates the relationship between subjective norms on social entrepreneurial intention.

Consequently, the overall model fit has improved for both of these measures. The regression coefficient for the effect of the moderator on the relationship is 0.178 at a standard error of 0.029. Therefore indicating an impact on the overall regression model. The coefficient is statistically significant.

Figure 20: *Entrepreneurial self-efficacy influence on perceived behavioural control with social entrepreneurial intention*



The moderator findings are also confirmed in Figure 20, which shows the interaction between perceived behavioural control and entrepreneurial self-efficacy, where the presence of high entrepreneurial self-efficacy improves social entrepreneurial intention.

5.6. Conclusion

The results of the data collection process and statistical analysis are presented in Chapter 5. A descriptive analysis, as well as a statistical analysis, are presented in this chapter. A final analysis of the hypotheses was conducted, and the results were reported. As the ultimate research question for this study was to examine, "What is the influence of entrepreneurial self-efficacy on the relationship between social entrepreneurial intention antecedents and social entrepreneurial intentions", the study succeeded in addressing that question. To follow is chapter 6, which provides a discussion of the results and supports it with evidence from the literature. However, a summary below outlines the hypotheses' results from chapter 5.

Table 15: Summary of hypotheses test results

| Hypothesis | | Findings | Accepted/ rejected |
|------------|---|--|--------------------|
| H1a | Attitude towards social entrepreneurship has a positive impact on social entrepreneurial intention. | A positive and significant relationship between social entrepreneurial intention and the sub-dimension, the attitude was established, and it was confirmed that attitude predicts social entrepreneurial intention. | Accept |
| H1b | Subjective norms have a positive impact on social entrepreneurship intention. | A positive and significant relationship between social entrepreneurial intention and subjective norms' sub-dimension was established, and it was confirmed that subjective norms predict social entrepreneurial intention. | Accept |
| H1c | Perceived behavioural control has a positive impact on social entrepreneurship intention. | A positive and significant relationship between social entrepreneurial intention and the sub-dimension perceived behavioural control was established, and it was confirmed that perceived behavioural control predicts social entrepreneurial intention. | Accept |
| H2a | Entrepreneurial self-efficacy has a moderating effect on the relationship between attitude and social entrepreneurial intention. | As much as attitude was confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. | Accept |
| H2b | Entrepreneurial self-efficacy has a moderating effect on the relationship between subjective norms and social entrepreneurial intention. | As much as subjective norms were confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. | Accept |
| H2c | Entrepreneurial self-efficacy has a moderating effect on the relationship between perceived behavioural control and social entrepreneurial intention. | As much as perceived behavioural control was confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. | Accept |

CHAPTER 6

DISCUSSION OF RESULTS

6.1. Introduction

Chapter 6 includes a summary of the results and a discussion of the results from the data collection process. Moreover, it provides an overview of the results of the statistical analysis and descriptive statistics. Lastly, it elaborates on the results from the hypotheses testing that was undertaken. Table 16 presents a summary of the results.

6.2. Summary of Results

Table 16: *Summary of the results in chapter 5.*

| Section | Sub-section | Result Summary |
|----------------------|-----------------------------|--|
| Data collection | Data gathering | The raw sample size comprised 252 respondents. However, not all participants were from South Africa, so the sample was reduced to 237. There was no missing data. |
| Data analysis | Data preparation and coding | A pre-test was used to improve the survey questionnaire through feedback. Data were coded for ease of use in SPSS and AMOS. |
| | Descriptive statistics | Information on the population demographics, such as age, the field of study, entrepreneurial education, and profession, was reported as descriptive statistics. |
| Statistical analysis | Outlier test | The outlier test indicated the presence of 10 outliers in 3 out of 5 constructs. This was visible in the Q-Q test. However, the box outlier test illustrated that these outliers were insignificant. |
| | Normality | The results for the skewness and kurtosis tests indicated normal distribution in the data. |
| | Factor analysis | Factor analysis through CFA modelling determined the factor loadings and confirmed a reasonably good model fit after removing some items from the model. |
| | Construct Validity | Convergent validity was confirmed using CFA, while discriminant validity was confirmed using correlation. |
| | Reliability | Reliability was confirmed with good Cronbach's alpha values for each construct. This was further emphasised using the mathematical formula for CR. |
| Hypothesis testing | H1a | A positive and significant relationship between social entrepreneurial intention and the sub-dimension attitude was established, and it was confirmed that attitude predicts social entrepreneurial intention. |
| | H1b | A positive and significant relationship between social entrepreneurial intention and subjective norms' sub-dimension was established, and it was confirmed that subjective norms predict social entrepreneurial intention. |

| | | |
|--|-----|--|
| | H1c | A positive and significant relationship between social entrepreneurial intention and the sub-dimension perceived behavioural control was established, and it was confirmed that perceived behavioural control predicts social entrepreneurial intention. |
| | H2a | As much as attitude was confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. |
| | H2b | As much as subjective norms were confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. |
| | H2c | As much as perceived behavioural control was confirmed to have a significant and positive impact on social entrepreneurial intention, this relationship was strengthened by the moderating effect of entrepreneurial self-efficacy. |

6.3. Data collection

A total of 237 respondents were included in the final sample size. Since the sample size of this study was far in excess of the recommended sample size of 200 (Hair et al., 2019). The sample was considered appropriate for descriptive and inferential statistics because it was comparable to the sample sizes obtained by other researchers conducting similar research. Tiwari et al. (2017) investigated the influence of emotional intelligence and self-efficacy on social entrepreneurial intentions and attitudes in students with 230 students. In comparison, Rambe & Ndofirepi (2021) used a sample size of 284 respondents to examine the social entrepreneurial intention of students in Zimbabwe through moral obligation, empathy, self-efficacy and social support. This is even though the post-graduate population in South Africa is relatively large, and the research study was limited in time. Therefore, a sample size of 237 is adequate.

6.4. Data analysis

The data were evaluated using SPSS 26 and AMOS 28 software for statistical testing. These include descriptive percentage analyses, multiple regressions, and confirmatory factor analyses.

Considering that the data collected only came from a survey questionnaire, the likelihood of common method bias was considered necessary. As a first step, participants were asked to answer all survey questions anonymously, thereby reducing the possibility of

social desirability bias on the part of respondents (Urban, 2020). As a second step, a pilot study with seven respondents was conducted to ensure that scale items were unambiguous and clearly understood. Despite this, common method biases were not assessed to determine if a single factor accounted for most of the variance.

6.5. Statistical analysis

In most cases, the Likert scale items from the constructs of the questionnaire represented a normal frequency distribution. The histogram in Appendix C shows that the frequency distribution was to the right. This can also be determined from the mean and standard deviation values. However, the skewness of all but item AIA3 was between +/- 2 and is generally accepted (Hair et al., 2019). The kurtosis value of the items were all in between +/-10. However, even though this item was removed later in the analysis, it was worth noting that item AIA3 had a remarkably higher value than all the other items. According to the remaining information provided by the respondents, the Q-Q test, along with skewness and kurtosis, provided evidence of a bell-shaped normal distribution of the data (Trivedi, 2017).

In order to validate all the constructs under investigation, CFA modelling was conducted. As a result of the CFA, one question was removed from the antecedents of intention and attitude, three were removed from the dependent variable social entrepreneurial intention, and two were removed from the moderator, entrepreneurial self-efficacy, to achieve a better model fit. This resulted in a scale of 4 questions for attitude towards behaviour, 4 for subjective norms, 5 for perceived behavioural control, 3 for the dependent variable, social entrepreneurial intention and 7 for the moderator, entrepreneurial self-efficacy. Making it an instrument with a total of 23 measuring items.

Consequently, a better convergence was achieved. In order to establish discriminant validity, the mathematical equation was first evaluated in accordance with Fornell & Larcker's (1981) discriminant validity test. In this instance, there was only one coefficient above the square root of the AVE under the perceived behavioural control construct. Nonetheless, discriminant validity was established since the value was above the threshold stipulated by Hair et al. (2019). Therefore both convergent and discriminant validity was demonstrated.

This study utilised Cronbach's alpha to evaluate the reliability of the measures. A Cronbach's alpha of at least 0.70 should be considered as part of the criteria for retaining a scale item (Hair et al., 2019). Cronbach's alpha results confirmed the reliability of the measurement questionnaire used in the study. In addition, Despite being above the recommended level of 0.70, the composite reliability values were still above average. The composite reliability test provided evidence that all constructs were measured within an appropriate range. As a result, composite reliability has been established. As a result, this study is valid and reliable for the context. Accordingly, it was noted that the sample was homogenous and appropriate to determine whether the construct is reliable.

6.6. Descriptive statistics

6.6.1. Population demographics

Thirteen variables were collected from the survey questionnaire to examine the respondents' demographic characteristics. The data were filtered based on the respondent's country of residence, and removed respondents who did not reside in South Africa since the context of the study was South Africa. The other variables were then utilised to characterise the respondents and better understand their social and entrepreneurial backgrounds, which may have influenced their intentions. In order to categorise these variables, age and gender were first considered, followed by education and work experience. These were age, gender, education level, field of study, professional activity, entrepreneurial exposure, entrepreneurial education, highest qualification, completion year and previous involvement in social projects. The question was asked: "if funds were available, would they venture into social entrepreneurship? Moreover, they were asked if they had previously integrated social responsibility into their work.

Results revealed that about 60% of respondents were between 29 and 38. Furthermore, 61% of the participants were females, and 39% were males. Approximately 30% of the participants held a bachelor's degree with honours. In contrast, most respondents (31% of respondents) are from the engineering field of study. Moreover, 49% of the respondents who participated in the study worked for a company while they were

studying. It was 25% of those were working and not studying, followed by those working and had a side business.

Regarding entrepreneurship exposure, 55% of respondents had experience with entrepreneurship, and 45% had never been exposed. This is higher than the findings (Rambe & Ndofirepi, 2021) in Zimbabwe where 47% of participants had been exposed to entrepreneurship before. Nevertheless, Trivedi, (2017) noted that entrepreneurial exposure is necessary for students to have the sufficient entrepreneurial intention (Trivedi, 2017). To improve students' attitudes toward entrepreneurship, it was further It was recommended that students be acquainted with entrepreneurship at an early stage. This also applies to social entrepreneurship since entrepreneurship and social entrepreneurship are similar (Tan et al., 2020). Most respondents (77%) indicated that they had not received any entrepreneurial education, while only 23% had received some entrepreneurial education.

Most participants (51%) obtained their highest qualification within the last five years, followed by those who obtained their highest qualification between 2007 and 2017.

57% of respondents had previously participated in social projects, 35% had not, and 8% were unsure whether they had participated in social projects before. The survey showed a high percentage (79%) of respondents who would like to start a social enterprise if funding were available; the remaining 14% were unsure. There is an extremely high percentage of respondents (91%) who would prefer to participate in activities that allow them to help others in some way. Only 3% were confident they would not prefer to do so, and the remaining 6% were unsure.

Lastly, 46% of respondents said they had incorporated social responsibility into their business or organisation, 41% said they had not, and 13% were not sure.

6.7. Hypothesis testing

According to the planned behaviour theory (Ajzen, 1991), there are three critical antecedents of intention: Attitude, subjective norms, and perceived behavioural control are antecedents of intention that can positively influence social entrepreneurial intentions. This indicated that individuals must possess and utilise these three to

enhance their intention towards a behaviour (Ajzen, 1991). Trivedi (2017, conducted a study looking into these three multidimensional constructs on their impact on social entrepreneurial intention and found that all three were indeed determinants of entrepreneurial intention. When Tiwari et al. (2017b) conducted a similar study on the effect of three sub-dimensions on the theory of planned behaviour towards social entrepreneurial intention, other researchers analysed the three multi-dimensions in a multidimensional manner (Trivedi, 2017; Tiwari et al., 2017b).

This is because they are the main sub-dimensions of the theory. Thus, this will enhance our understanding of the purposeful actions of post-graduate students, as the theory has established that intentions predict immediate behavioural actions. In other studies, the antecedents of entrepreneurial intention have been established to impact entrepreneurial intention positively.

6.7.1. Hypothesis 1a: Attitude towards social entrepreneurship has a positive impact on social entrepreneurial intention

Before testing for the hypothesis, the three main assumptions of regression needed to be tested and confirmed. For instance, it was assumed that the data were normally distributed and linear. Therefore, the P-P results depicted that the data followed a straight-line graph for all the relationships. The residual scatter plot indicated that the data set used for all relationships was mainly concentrated at the centre of the graph, except for a few insignificant outliers discussed in the section above. Therefore, this supports the assumption that the data were normally distributed. Lastly, it was assumed that there was no multicollinearity between the data set of two variables. This was confirmed by a VIF value of less than 10.0 and a tolerance value of 1. This was consistent with the results obtained by Aydogmus, (2021).

Hypothesis H1a posits to examine if there is a positive relationship between attitude and social entrepreneurial intention. Multiple regression analysis was undertaken to test the hypotheses. A level of bias was revealed, as determined by the R^2 , which is 0.0.483, or 48.1%. Thus, attitude accounts for 48% of the variability in social entrepreneurial intention.

Attitude towards a behaviour has shown a strong and significant relationship with general entrepreneurial intention (Trivedi, 2017). Considering that entrepreneurial intention is the premise on which social entrepreneurial intention was based, it was expected that the relationship would also be strong and significant with attitude and social entrepreneurial intention. This was indeed the case with an H1a having a $\beta = 0.74$, at a $p < 0.001$) which was higher than that obtained by Chang et al. (2021) of $\beta = 0.125$, $p < 0.05$. Therefore, considering attitude toward becoming a social entrepreneur shows high, positive and significant effects on social entrepreneurial intentions. The graduates who are most likely to develop a social entrepreneurial intention are those with a positive attitude about pursuing social entrepreneurship. In addition to being enthusiastic about becoming a social entrepreneur, the assurance that one can achieve it is also essential (Tiwari et al., 2017a).

6.7.2. Hypothesis 1b: Subjective norms have a positive impact on social entrepreneurship intention

Before testing for the hypothesis, the three main assumptions of regression needed to be tested and confirmed. For instance, it was assumed that the data were normally distributed and linear. Therefore, the P-P results indicated that the data followed a straight-line graph for all the relationships. The residual scatter plot indicated that the data set used for all relationships was mainly concentrated at the centre of the graph, except for a few insignificant outliers discussed in the section above. Therefore, this supports the assumption that the data were normally distributed. Lastly, it was assumed that there was no multicollinearity between the data set of two variables. This was confirmed by a VIF value of less than 10.0 and a tolerance value of 1 (Urban, 2020).

Subjective norms and the intention to engage in a specific behaviour still need to be clarified (Doanh & Bernat, 2019). In this regard, it is crucial to determine whether subjective norms directly or indirectly impact an individual's social entrepreneurial intention. However, some studies have argued that subjective norms significantly explain entrepreneurial intention (Tiwari et al., 2017a), while others have shown no significant relationship. Therefore, it was interesting to investigate the relationship between subjective norms and social entrepreneurial intention.

In accordance with Doanh & Bernat (2019), an individual may have more positive intentions toward entrepreneurship if he or she receives approval and support from reference people. However, this relation has been shown to be reversed even though the same research instrument used by Doanh & Bernat (2019) for the entrepreneurial intention was adapted for this study. Where a person's positive intention towards entrepreneurship if reference people approve and support, their intention towards entrepreneurship has become negative. This may be due to either two aspects, the difference in entrepreneurial intention and social entrepreneurial intentions, and the different contexts in which it was applied. Hence, most studies have indicated that subjective norms are yet to be understood. Therefore, this study needed to investigate how subjective norms relate to social entrepreneurial intention.

Using multiple regression analysis, hypothesis H1b was tested. Even though subjective norms had a significant and positive association with social entrepreneurial intention, the relationship had the weakest effect ($\beta = 0.334$ at a $p < 0.001$) In contrast to attitude and perceived behavioural control as per hypothesis 1a and 1b, respectively. However, compared to other studies, this value is higher than the $\beta = 0.141$, $p < 0.05$ that was obtained by Chang et al. (2021). This was contradictory to the work by Doanh & Bernat (2019) found that subjective norm had no significant direct relationship with general entrepreneurial intention; it only had an indirect relationship when self-efficacy was mediating.

However, the variance of the dependent variable was $R^2 = 0.112$, at an F-value = 29.52 and significant less than 0.001. Thus, subjective norms accounted for 11% of the variability in social entrepreneurial intention.

6.7.3. Hypothesis 1c: Perceived behavioural control has a positive impact on social entrepreneurship intention

Before testing for the hypothesis, the three main assumptions of regression needed to be tested and confirmed; for instance, it was assumed that the data were normally distributed and linear. Therefore, the P-P results depicted that the data followed a straight-line graph for all the relationships. The residual scatter plot indicated that the data set used for all relationships was mainly concentrated at the centre of the graph,

except for a few insignificant outliers discussed in the section above. Therefore, this supports the assumption that the data were normally distributed. Lastly, it was assumed that there was no multicollinearity between the data set of two variables. This was confirmed by a VIF value of less than 10.0 and a tolerance value of 1 (Urban, 2020).

A multiple regression analysis was performed on H1c to predict social entrepreneurial intention based on perceived behavioural control. The results indicated the second strongest effect with a $\beta = 0.451$ at a $p < 0.00$, indicating significance. This beta value was in a similar range ($\beta = 0.435$ at a $p < 0.001$) as what was obtained by Chang et al. (2021) for the relations among perceived behavioural control and social entrepreneurial intention. Perceived behavioural control is the most important in other studies (Trivedi, 2017). However, in this case, perceived behavioural control impact was the second strongest after attitude, which is congruent with (Tiwari et al., 2017a) findings, where perceived behavioural control had the strongest relationship with social entrepreneurial intention ($\beta = 0.35$ at a $p < 0.01$).

Through hypothesis H1c, 20.3 % of the dependent variable variance was explained since $R^2 = 0.203$ at $F = 59.918$ and significantly less than 0.001. Consistent with other studies (Chang et al., 2021; Tiwari et al., 2017), the results of this study demonstrate that perceived behavioural control is positively associated with post-graduate students' entrepreneurial self-efficacy. Therefore, the hypothesis is accepted. A study by Chang et al. (2021) indicates that students whose attitude toward social enterprises were positive and had a strong sense of behavioural control are likelier to start a new venture with a feasible goal in mind.

Studies have demonstrated that self-efficacy significantly impacts the intention to engage in social entrepreneurship (Igwe et al., 2020; Rambe & Ndofirepi, 2021). Entrepreneurial self-efficacy can affect entrepreneurial intention directly or indirectly (Igwe et al., 2020). Therefore, as a moderator, self-efficacy was an appropriate choice for this study to explore how it affects the relationship between antecedents of intention, including attitude, subjective norms, and perceived behavioural control (Doanh & Bernat, 2019). Tiwari et al. (2017) found a positive relationship between entrepreneurial self-efficacy and intentions to engage in social entrepreneurship. Thus, a positive

interaction was anticipated for entrepreneurial self-efficacy as a moderator in H2a, H2b and H2c.

6.7.4. Hypothesis 2a: Entrepreneurial self-efficacy has a moderating effect on the relationship between attitude and social entrepreneurial intention

Before testing for the hypothesis, H2a, the three main assumptions of regression needed to be tested and confirmed, for instance, it was assumed that the data were normally distributed and linear.

Therefore, the P-P results indicated that the data followed a straight-line graph for all the relationships. The residual scatter plot indicated that the data set used for all relationships was mainly concentrated at the centre of the graph, except for a few insignificant outliers discussed in the section above.

Therefore, this supports the assumption that the data were normally distributed. Lastly, it was assumed that there was no multicollinearity between the data set of two variables. This was confirmed by a VIF value of 5.648, and a tolerance value of 0.177 was regarded acceptable and considered to have low incidence of multicollinearity as they were less than 10.0 and less than 1, respectively. Self-efficacy has proven to be particularly useful in determining individuals' entrepreneurial intentions. The moderation of entrepreneurial self-efficacy on the relationship between attitude towards social entrepreneurial intention is supported with a $\beta = 0.74$ at a $p < 0.001$.

Therefore, with H2a, it was revealed that entrepreneurial self-efficacy moderates and strengthens the immediate relationship between attitude towards behaviour and social entrepreneurial intentions. Hence, the findings of this study align with those of previous researchers that support entrepreneurial self-efficacy as a moderator influence an individual's intention to take part in social entrepreneurial intention (Newman et al., 2019). Thus, developing strategies to make post-graduate students feel confident and increase their self-belief in their skills to increase their attitude towards social entrepreneurship is imperative. This will increase their intention towards social entrepreneurship and, consequently, their intended behaviour (Hossain, 2021).

A study conducted by Tiwari et al. (2017b) on undergraduate students in India tested the effect of self-efficacy on attitude towards social entrepreneurship. Another hypothesis tested the effect of attitude towards becoming a social entrepreneur on social entrepreneurial intention. The results gave a ($\beta = 0.21$ at a $p < 0.01$) and a ($\beta = 0.37$ at a $p < 0.01$), respectively. Even though both these values are less than this study's findings when entrepreneurial self-efficacy moderates the relationship between attitude towards social entrepreneurship and social entrepreneurship, the underlying reasoning concurs. If students have a positive attitude towards social entrepreneurship and high self-efficacy in their entrepreneurial capabilities, their social entrepreneurial intention can only be enhanced. In turn, this enhances their social entrepreneurial behaviour moving forward.

6.7.5. Hypothesis 2b: Entrepreneurial self-efficacy has a moderating effect on the relationship between subjective norms and social entrepreneurial intention

It is necessary to test and confirm the three main regression assumptions before testing the hypothesis, H2b, which states that *Entrepreneurial self-efficacy has a moderating effect on the relationship between subjective norms and social entrepreneurial intention*. For example, it was assumed that the data would be normally distributed and linear. The skewness and kurtosis analyses indicated that the data were normally distributed, while the Q-Q plot indicated a linear distribution. P-P plots were performed, and the regression results indicated that all relationships followed a straight line.

Based on the residual scatter plot, the relationships were predominantly random and concentrated at the centre of the graph. As a result, this supports the hypothesis that the data were normally distributed. Last but not least, it was assumed that there were no multicollinearities between the two variables in the data set. As a result, a VIF value of 3.545 and a tolerance value of 0.282 were deemed acceptable and were interpreted as indicating low incidences of multicollinearity because they were less than 10.0 and less than 1, respectively (Urban, 2020). Hypothesis 2b suggests that the interaction of entrepreneurial self-efficacy on the relationship of subjective norms towards social

entrepreneurial intention is supported with a $\beta = 0.961$ at a $p < 0.001$ that indicates a positive and statistically significant effect.

According to the results of this study, subjective norm also positively impacts post-graduate students' social entrepreneurial intentions, and entrepreneurial self-efficacy further enhances this effect. Concerning H2b, entrepreneurial self-efficacy moderated the relationship between subjective norms and social entrepreneurial intentions. Accordingly, the findings of this study are consistent with those of previous researchers who found that entrepreneurial self-efficacy plays a moderating role in impacting an individual's intention to participate in social entrepreneurship (Igwe et al., 2020).

The study conducted by Tiwari et al. (2017b) on undergraduate students in India examined the effects of self-efficacy on subjective norms and, on a second hypothesis, examined the effects of subjective norms on social entrepreneurial intentions. The results gave a ($\beta = 0.15$ at a $p < 0.01$) and a ($\beta = 0.11$ at a $p < 0.01$), respectively. The underlying reasoning for both values is consistent with this study's findings when entrepreneurial self-efficacy moderates the relationship between attitude towards social entrepreneurship and social entrepreneurship, despite the lower values. Specifically, suppose a student has both a positive attitude towards social entrepreneurship and a high level of self-efficacy in their entrepreneurial capabilities. In that case, their intention to engage in social entrepreneurship will only be strengthened. Consequently, their social entrepreneurial behaviour will be enhanced in the future.

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6.7.6. Hypothesis 2c: Entrepreneurial self-efficacy has a moderating effect on the relationship between perceived behavioural control and social entrepreneurial intention

It is necessary to test and confirm the three main regression assumptions before testing the hypothesis, H2c, which Entrepreneurial self-efficacy has a moderating effect on the relationship between perceived behavioural control and social entrepreneurial intention.

For example, it was assumed that the data would be normally distributed and linear. The skewness and kurtosis analyses indicated that the data were normally distributed, while the Q-Q plot indicated a linear distribution. P-P plots were performed, and the regression results indicated that all relationships followed a straight line. The residual scatter plot indicated that the data set used for all relationships was mainly random and concentrated in the middle of the graph. Therefore, this supports the assumption that the data were normally distributed. Lastly, it was assumed that there was no multicollinearity between the data set of two variables. However, even though the entrepreneurial self-efficacy moderated relationship of perceived behavioural control and social entrepreneurial intention has a tolerance of 0.084, the VIF value was greater than 10 (VIF = 11.926), which indicates that there are multicollinearities. This implies that the relationship regression coefficient is unstable (Hair et al., 2019). Lastly, hypothesis 2c suggests that the interaction of entrepreneurial self-efficacy on the relationship of perceived behavioural control towards social entrepreneurial intention is supported with a $\beta = 1.133$ at a $p < 0.001$.

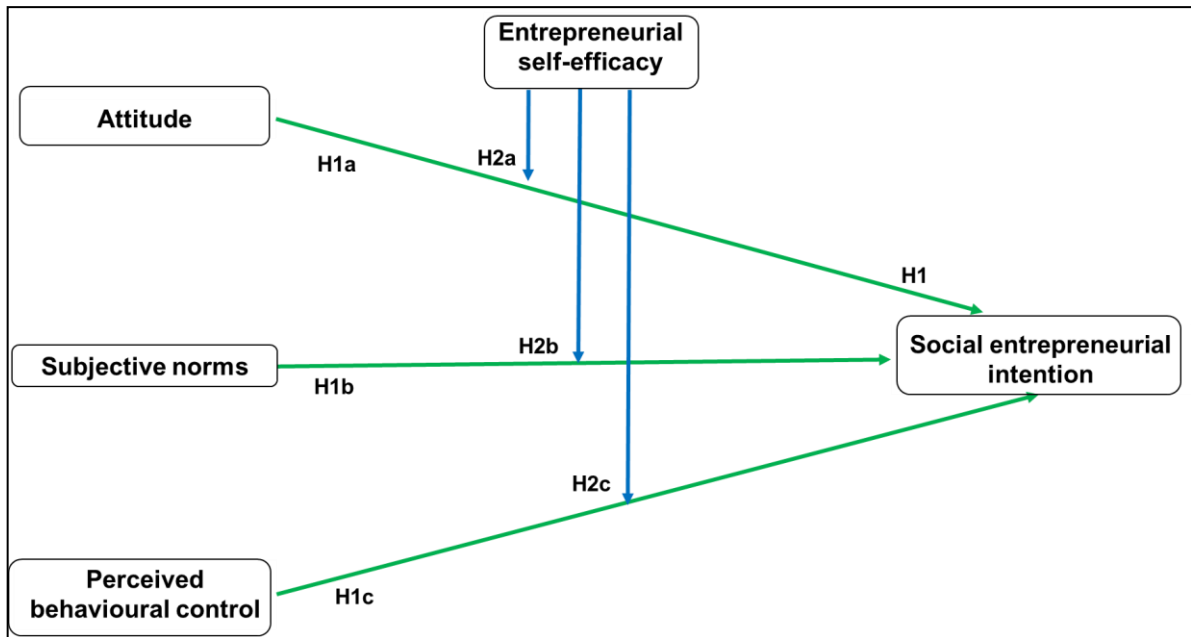
Therefore, entrepreneurial self-efficacy has a modest effect on attitude, subjective norms, and perceived behavioural control compared to most studies. The reason for this is that (Hockerts, 2017) and conducted the research in more advanced economies than South Africa, where perhaps the economy was more conducive to exerting greater influences on self-efficacy, which may have implications for social entrepreneurship intention. Zimbabwe (Rambe & Ndofirepi, 2021) and Nigeria (Igwe et al., 2020) are on the same continent as South Africa. For this study, similar considerations may be made for the South African context.

6.8. Summary of the results from the hypothesis testing

As a result of the hypothesis testing, it was determined that H1, which tested the relationship of all three dimensions as the antecedents of intention, was statically significant. Furthermore, hypotheses H1a, H1b, and H1c, which tested the relationship of attitude (H1a), subjective norms H1b, and perceived behavioural control (H1c) on the social entrepreneurial intention, were also found to be statistically significant. Lastly, by including the moderator, entrepreneurial self-efficacy, in each of the three relationships of attitude, subjective norms, and perceived behavioural control, the three respective

hypotheses H2a, H2b and H2c, were tested and resulted in statistical significance, where the inclusion of the moderator enhanced the strength of the relationships in some way. Figure 21 shows all the tested hypothesis that found the relationships to be significant.

Figure 21: Summary of hypothesis results



Note. Model showing all green and blue hypotheses were found to be significant, thus accepted.

The three dimensions of intention positively influence post-graduate students' intentions to engage in social entrepreneurship in accordance with the Theory of Planned Behaviour (Attitude toward social entrepreneurship, subjective norm, and perceived behavioural control). Furthermore, the study's findings suggest that the social entrepreneurial intention of post-graduate students is strengthened when they possess higher entrepreneurial self-efficacy.

6.9. Conclusion

Chapter 6 provided a summarised version of the results and a discussion of the findings based on the gathered data compared to previous literature findings. Furthermore, it represented a synopsis of the descriptive and inferential statistical analysis and provided

justifications. Furthermore, the chapter discussed the hypotheses test results performed. The last chapter concludes the research study and provides recommendations for future research.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

A summary of the main conclusions derived from the discussion is represented. The research's implications for business and academic purposes are provided in Chapter 7. Moreover, the chapter includes an overview of the implications of the research for academic purposes, as well as recommendations for future research in the area of social entrepreneurship.

7.2. Principle conclusions

Based on the literature, the study validated the questionnaire used to examine attitudes toward social entrepreneurship, subjective norms and perceived behavioural control as intention antecedents, entrepreneurial self-efficacy and social entrepreneurial intentions among post-graduate students. While the instrument was developed and applied in other countries where the context differs from South Africa, it demonstrated good reliability and adequate validity in those settings. The study further explored the three sub-dimensions constituting the antecedents of intention. The findings supported the previous work by Chang et al. (2021) on these three sub-dimensions as the antecedents of social entrepreneurial intention. A further contribution of the study is the finding that entrepreneurial self-efficacy strengthens the relationship between the three social entrepreneurial intention antecedents and social entrepreneurial intention (Aydogmus, 2021; Neneh, 2022; Urban, 2020).

The six tested hypotheses are represented in chapter 3. Several conclusions were drawn from the study. From the first hypothesis, a strong correlation has been found between attitude towards being a social entrepreneur and social entrepreneurial intention. This was in agreement with the findings from similar studies (Chang et al., 2021; Tiwari et al., 2017b). Attitude towards behaviour demonstrated that it could effectively predict a student's social entrepreneurial intentions because it is likely to impact the student's decision to become a social entrepreneur by strengthening the positive perspective that venturing into a social enterprise is worthwhile (Tiwari et al.,

2017b). This was evidenced by attitude having the strongest correlation with social entrepreneurial intention among all three dimensions. Post-graduate students are more likely to be interested in setting up a social enterprise when they have a positive attitude towards social entrepreneurship. Graduates confident in their entrepreneurial abilities are more likely to succeed in this area.

From the second hypothesis, it was determined that there is a strong correlation which exists between subjective norms and social entrepreneurial intention. This was consistent with the findings from similar studies (Chang et al., 2021; Tiwari et al., 2017b). Subjective norms can effectively envisage a student's social entrepreneurial intentions because when people close to an individual are supportive and approve of the decision to participate in a social enterprise, they are likely to influence the student's decision to become a social entrepreneur (Tiwari et al., 2017b). In addition, post-graduate students are more inclined to engage in social entrepreneurial activities if they believe a person or people close to them will approve and support them, which is contrary to other studies in different contexts (Doanh & Bernat, 2019). The intention of the post-graduate student to establish a social enterprise may increase if he or she believes in their entrepreneurial ability.

The third hypothesis determined a strong correlation between perceived behavioural control and social entrepreneurial intention. This was consistent with the findings from similar studies (Chang et al., 2021; Tiwari et al., 2017b). Perceived behavioural control can effectively predict a student's social entrepreneurial intentions. This is because when people close to the individual are supportive and approve of the decision to participate in a social enterprise, they are likely to influence the student's decision to become a social entrepreneur (Tiwari et al., 2017b). Additionally, the study found that post-graduate students who perceived no difficulty engaging in a social enterprise had an increased intention to do so. Furthermore, if these students believe they are capable of entrepreneurship, their intentions will be strengthened, resulting in a successful social enterprise.

The fourth hypothesis found that entrepreneurial self-efficacy moderated the relationship between attitude and social entrepreneurial intention. The degree to which an entrepreneur is confident in their competence, know-how, and abilities to start and

succeed in a new business venture. The study's findings examined and demonstrated the effect of entrepreneurial self-efficacy as a moderator of the relationship between attitude and social entrepreneurship. The effect was positive and statistically significant, which indicated that if post-graduate students are confident in their entrepreneurial knowledge and skills, the impact of their attitudes towards participating in a social enterprise can be strengthened and enhanced.

According to the fifth hypothesis, entrepreneurial self-efficacy moderated the relationship between subjective norms and social entrepreneurial intentions. Based on the study's findings, entrepreneurial self-efficacy was demonstrated to be a moderator of the relationship between subjective norms and social entrepreneurship. It was determined that when post-graduate student is confident in their entrepreneurial knowledge and skills, the impact of others close to them approving and supporting their intention to embark on social entrepreneurship is increased. As this effect was positive and statistically significant.

Lastly, the sixth and final hypothesis looked into the moderating effect of entrepreneurial self-efficacy on the relationship between subjective norms and social entrepreneurial intentions. Based on the study's findings, entrepreneurial self-efficacy was observed to moderate the positive and significantly influence how post-graduates perceive the difficulty level when they intend to embark on a social entrepreneurship journey.

7.3. Business implications

The study explains what motivates post-graduate students to become social entrepreneurs after obtaining their qualifications. Graduates' perceptions of social entrepreneurship should be changed in order for governments to encourage social entrepreneurship practices within South Africa. Individuals can improve their entrepreneurial self-efficacy by organising and participating in more activities related to social enterprises. As these activities are likely to improve the number of potential social entrepreneurs.

The unprecedented societal challenges in majority of the emerging countries, such as South Africa, necessitate government policies that promote social entrepreneurship to curb many daunting social challenges, such as the high level of unemployment, climate change and soaring inequality rates (Grewatsch et al., 2021). There is a growing need

for governments worldwide to understand and boost individuals' morale to participate in social entrepreneurship. They continue to face ever-increasing social challenges and depend on social entrepreneurship to reduce unemployment, improve economic growth, and address some social ills. Choosing to participate in a social enterprise begins with developing social entrepreneurial intentions. These intentions are a good predictor of future social entrepreneurial behaviour (Neneh, 2022; Newman et al., 2019).

Entrepreneurial self-efficacy moderates the relationship between attitude toward a behaviour, subjective norms, perceived behavioural control and social entrepreneurial intentions, besides enhancing the image of social entrepreneurship as a career option in positively regarded societies. It is imperative that family and friends of potential social entrepreneurs to raise awareness and empower them regarding the relevance and importance of social entrepreneurship so they can recognize it as a viable career path. A wider (Peredo & McLean, 2006; Tan et al., 2020)

There needs to be more research on social entrepreneurial behaviour in African countries, which may often result in inappropriate policies and inadequate support (Urban, 2020). In order to increase overall social entrepreneurial intentions, policymakers, mainly in African countries, may be advised to recognise the interplay between social entrepreneurial intention, attitude, subjective norms, perceived behavioural control and entrepreneurial self-efficacy. As a result, policymakers have an opportunity to intervene in a way that targets the individual beliefs of graduate students in a way that positively influences social entrepreneurial intentions and therefore influences their behaviour towards social entrepreneurship.

7.4. Theoretical implications

Three substantial theoretical implications were derived from the study findings. Accordingly, the attitude one has towards establishing a socially beneficial enterprise plays an instrumental role in influencing post-graduate students' participation in social entrepreneurship. This was also found to be the case with subjective norms. Individuals who believe the people around them can accept and support them in their social entrepreneurial endeavours are more likely to have a positive attitude towards social entrepreneurship. Lastly, the study confirmed that post-graduate students who

anticipate the difficulties associated with social entrepreneurship are more likely to have a strengthened and positive intention to embark on this journey. The above findings confirm work established by other researchers on the contribution of these three antecedents of intention to social entrepreneurial intention as a driver of planned behaviour (Chang et al., 2021; Tiwari et al., 2017a).

Moreover, this study demonstrates the moderating role of entrepreneurial self-efficacy in enhancing the relationship between attitude and social entrepreneurial intention. In addition, the same moderating effect was also found to enhance the relationship of subjective norms with social entrepreneurial intention. Furthermore, entrepreneurial self-efficacy as a moderator also strengthened the relationship of post-graduates perceived behavioural control in a significant way. Therefore, this study adds to the planned behaviour theory by illustrating the profound moderating influence of entrepreneurial self-efficacy when understanding post-graduate student planned behaviours.

Furthermore, this study is an extension of prior work by incorporating entrepreneurial self-efficacy as a moderator, which has not been conducted before in this field of research.

This paper also contributes to the body of work on the general concepts of social entrepreneurship in the emerging country context. This is because it has been shown to differ from that of developed countries. (Hockerts, 2017; Tiwari et al., 2017a).

7.5. Limitations

The purpose of this section is to provide an analysis of the factors that may have affected the research results. Generalisability

7.5.1. Bias

Since the data was obtained from the same respondents, this may have led to common method variance. To alleviate this, the participants' sample could be categorized according to regions and used for comparison. This is to alleviate the variance caused by regional or institutional dynamics.

7.5.2. Sample size

Considering the limited timeframe for data collection, the final sample size was 237 respondents. Although the sample size was well above 200 and was considered adequate for statistical analysis, other studies are conducted in this research area with sample sizes exceeding 237. Thus, the study could have had limited findings compared to other studies.

7.5.3. Sample method

One limitation of the sampling method used was the lack of controlled variables. Other extraneous variables must be controlled to adequately measure and understand the relationship between dependent and independent variables. Another limitation is that cross-sectional surveys challenge assessing the extent of common method variance bias.

7.5.4. Social entrepreneurial intention

Adding to the limitations, this study has the disadvantage of being cross-sectional, making it impossible to establish a causal relationship between variables. It is necessary to conduct longitudinal studies to test the relationship between cognitions and the intentions of social entrepreneurs. This is to assess whether those intentions lead to establishing social enterprises.

7.6. Recommendations for future research

For the study, control variables would be advantageous. It would be useful to determine whether an individual's highest degree of qualification or type of entrepreneurial experience influenced their intention to engage in social entrepreneurship.

It may be possible to gain a better understanding of intention formation through a longitudinal study. Despite this, this study may prove helpful in this region where the phenomenon of social entrepreneurship is growing tremendous rate. There is, however, still a need for research in this field to provide solutions to governments as policymakers.

Because the VIF for the relationship of PBC and SEI indicated the presence of multicollinearities, a Principal Component Analysis (PCA) model of this relation is recommended for future research to reduce the dimensionality without creating correlated variables and maximising variance (Hair et al., 2019). In addition, an one-way analysis of variance (ANOVA) to be conducted, as it can provide more information on whether or not there were variances between the mean groups on the difference between the mean groups in comparison to what is available in literature.

7.7. Final concluding remarks

This study examined the growing phenomenon of social entrepreneurial intention, which drives behaviour. In order to determine the impact of the fundamental constructs (attitude, subjective norms, and perceived behavioural control) recognized as prerequisites for other forms of intentions on social entrepreneurship, the research assessed the impact of these constructs. As a result of the study, entrepreneurial self-efficacy was found to significantly impact how an individual's attitude impacts their intention to participate in a social enterprise, a key concept when evaluating an individual's perceived readiness to demonstrate entrepreneurial behaviours. In addition, it affects their perception of how difficult it is to pursue their social entrepreneurial activities. In addition, it affects their conviction that influential people in their lives can approve of and encourage them.

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APENDECIES

Appendix A. Pre-test survey feedback

| Feedback received |
|--|
| Participant 1 |
| <i>No numbers on the questions</i> |
| <i>You are using firm, company and business in the different questions, just use one and stick with it</i> |
| <i>Questionnaire is short, I was surprised to see the submit button, but that's not a bad thing, people wont get bored, as long as you get the information you need.</i> |
| <i>enetrepreneurship and social entrepreneurship.</i> |
| <i>There are two duplicated questions. might be an error.</i> |
| Participant 2 |
| <i>Also in the introduction, you use key terms like entrepreneurial self-efficacy without defining what that means.</i> |
| <i>There are a couple of big words which I think might deny you the chance of getting real input because of a lack of understanding.</i> |
| <i>I am not sure if it was intentional but I thought some of the questions were the same or very similar</i> |
| <i>Also in the introduction, you use key terms like entrepreneurial self-efficacy without defining what that means.</i> |
| Participant 3 |
| <i>"My suggestion is that in your introduction, it is better to define the key terms e.g. I am conducting research on the social entrepreneurship (starting a business that is this and that kind of definition). In the study, I am investigating the impact of social entrepreneurial antecedents (factors before XXX)..."</i> |
| <i>This way, when you use the terms in the questionnaire then they are more informed and can give honest answers.</i> |
| Participant 4 |
| <i>The numbering on the questionnaire makes it seem long when it is actually just above 10 minutes. So I would recommend you remove the numbering, and participants will be guided only by time.</i> |
| Participant 5 |
| <i>"There are 2 repeated questions on the survey, not sure if these were intentional. Questions 22 and 18, please confirm."</i> |
| Participant 6 |
| <i>Interesting research study, please share the final report.</i> |
| Participant 7 |
| <i>It is a very short questionnaire</i> |

Thr work

Appendix B. Survey Questionnaire

Section 1: Demographic characteristics

| Questions | Code | Label |
|-----------------------------|------|---|
| Age group | 1 | 18 - 28 |
| | 2 | 29 - 38 |
| | 3 | 39 - 48 |
| | 4 | More than 49 |
| Gender identity | 1 | Male |
| | 2 | Female |
| Country of residence | 1 | South Africa |
| Education level | 1 | Higher Certificate |
| | 2 | Diploma Advanced Certificate |
| | 3 | Bachelor's Degree |
| | 4 | Post-graduate Diploma |
| | 5 | Bachelor's Honours Degree |
| | 6 | Master's degree |
| | 7 | Doctoral Degree |
| Field of study | 1 | Accounting and Finance |
| | 2 | Analytical chemistry |
| | 3 | Arts and Design |
| | 4 | Built Environment |
| | 5 | Business and Management |
| | 6 | Business Science |
| | 7 | Chemistry |
| | 8 | Economics |
| | 9 | Education |
| | 10 | Engineering |
| | 11 | Financial mathematics and actuarial science |
| | 12 | Health Science |
| | 13 | Humanities and social science |
| | 14 | Information Technology |
| | 15 | Legal services |
| | 16 | Marketing and communication |
| | 17 | Quality management |

| | | |
|--|----|--|
| Type of current professional activity | 1 | Hustling |
| | 2 | Lecturer |
| | 3 | Only studying |
| | 4 | Running a business |
| | 5 | Studying and looking for a job |
| | 6 | Studying and running my own business |
| | 7 | Studying and working for a company |
| | 8 | Studying and working on starting a business |
| | 9 | Unemployed |
| | 10 | Working and have a side hustle |
| | 11 | Working and no longer studying |
| | 12 | Working and not studying |
| | 13 | Working for a company, studying and have a side hustle |

Social Entrepreneurial intention

| | | | | | |
|--|-----------------------|--------------|----------------------------------|-----------------|--------------------------|
| Previous exposure to entrepreneurship | 1 | Yes | | | |
| | 2 | No | | | |
| Have you received entrepreneurship specific education? | 1 | Yes | | | |
| | 2 | No | | | |
| Country of residence | | South Africa | | | |
| Year when highest qualification was completed. (Note: this may be different from the year when you graduated) | List | In progress | | | |
| | | 2018 - 2022 | | | |
| | | 2007 - 2017 | | | |
| | | 1992 - 2006 | | | |
| I am/ have been involved in social projects | 1 | No | | | |
| | 2 | Unsure | | | |
| | 3 | Yes | | | |
| If I had the necessary funds, I would initiate a social enterprise. | 1 | No | | | |
| | 2 | Unsure | | | |
| | 3 | Yes | | | |
| I prefer to be involved in activities that allow me to help those around me | 1 | No | | | |
| | 2 | Unsure | | | |
| | 3 | Yes | | | |
| In my own business / organization, I have integrated a social responsibility component. | 1 | No | | | |
| | 2 | Unsure | | | |
| | 3 | Yes | | | |
| Questions | Strongly agree | Agree | Uncertain/ not applicable | Disagree | Strongly disagree |

| | | | | | |
|---|---|---|---|---|---|
| <i>I am ready to do anything to be a social entrepreneur</i> | 5 | 4 | 3 | 2 | 1 |
| <i>My professional goal is to be a social entrepreneur</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I will make every effort to start and run my own social enterprise</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I am determined to create a firm in the future</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I have very seriously thought of starting a business</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I have got the firm intention to start a company someday</i> | 5 | 4 | 3 | 2 | 1 |

Section 3: antecedents of intentions: Attitude

| Questions | Strongly agree | Agree | Uncertain/ not applicable | Disagree | Strongly disagree |
|---|----------------|-------|------------------------------|----------|-------------------|
| <i>Being an entrepreneur implies more advantages than disadvantages to me</i> | 5 | 4 | 3 | 2 | 1 |
| <i>A career as an entrepreneur is attractive to me</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I had the opportunity and resources, I'd like to start a business.</i> | 5 | 4 | 3 | 2 | 1 |
| <i>Being a social entrepreneur would entail great satisfaction for me</i> | 5 | 4 | 3 | 2 | 1 |
| <i>Among various options, I would rather be an entrepreneur</i> | 5 | 4 | 3 | 2 | 1 |

Subjective norms

| Questions | Strongly agree | Agree | Uncertain/ not applicable | Disagree | Strongly disagree |
|---|----------------|-------|------------------------------|----------|-------------------|
| <i>If I decided to create a business, my closest family would approve of that decision</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I decided to create a business, my closest friends would approve of that decision</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I decided to create a firm, Colleagues and friends important to me would approve of that decision</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I decided to create a business, teachers and lecturers who are important to me would approve of that decision</i> | 5 | 4 | 3 | 2 | 1 |

Perceived behavioural control

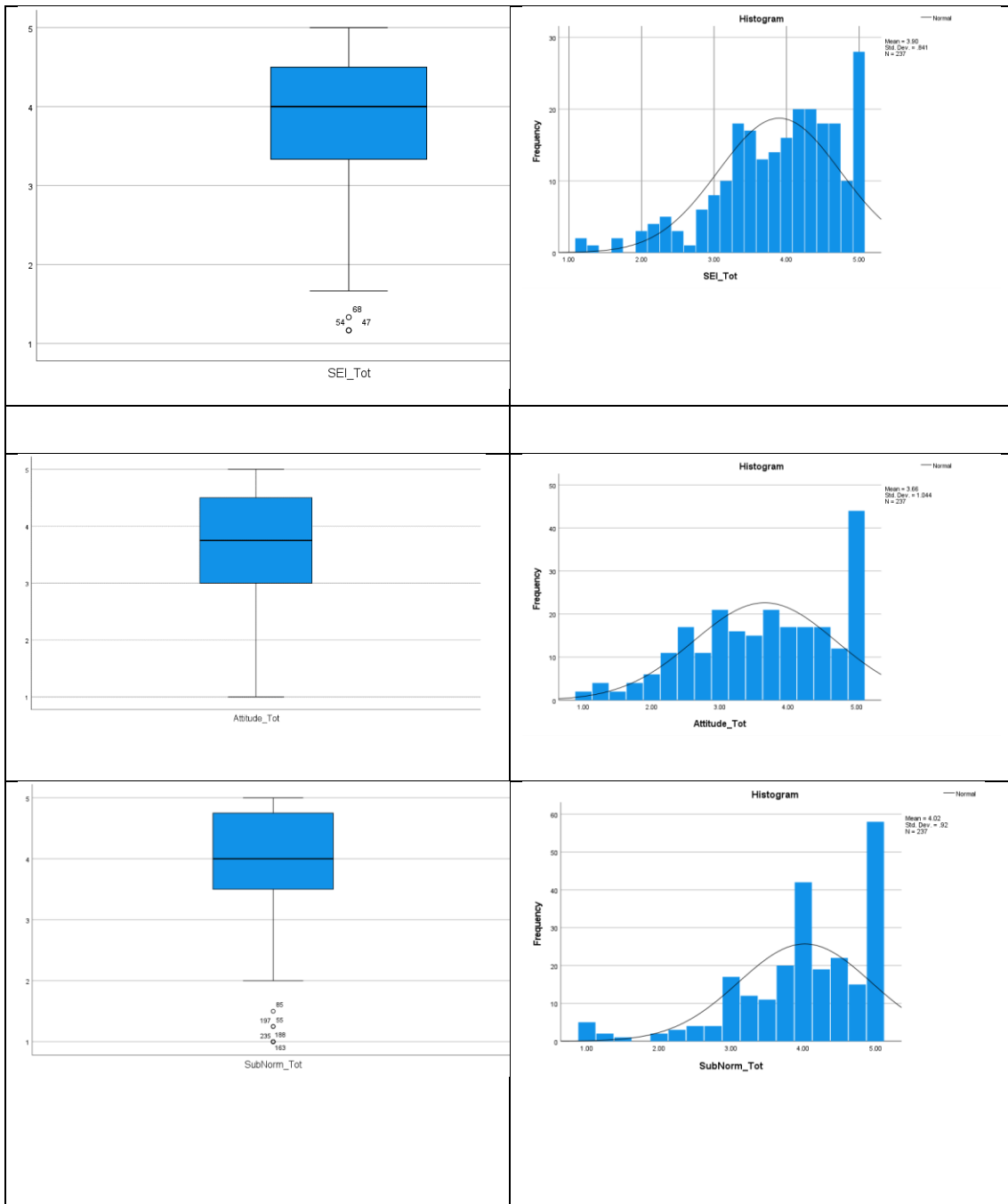
| Questions | Strongly agree | Agree | Uncertain/ not applicable | Disagree | Strongly disagree |
|---|----------------|-------|------------------------------|----------|-------------------|
| <i>To start a business and keep it working would be easy for me</i> | 5 | 4 | 3 | 2 | 1 |

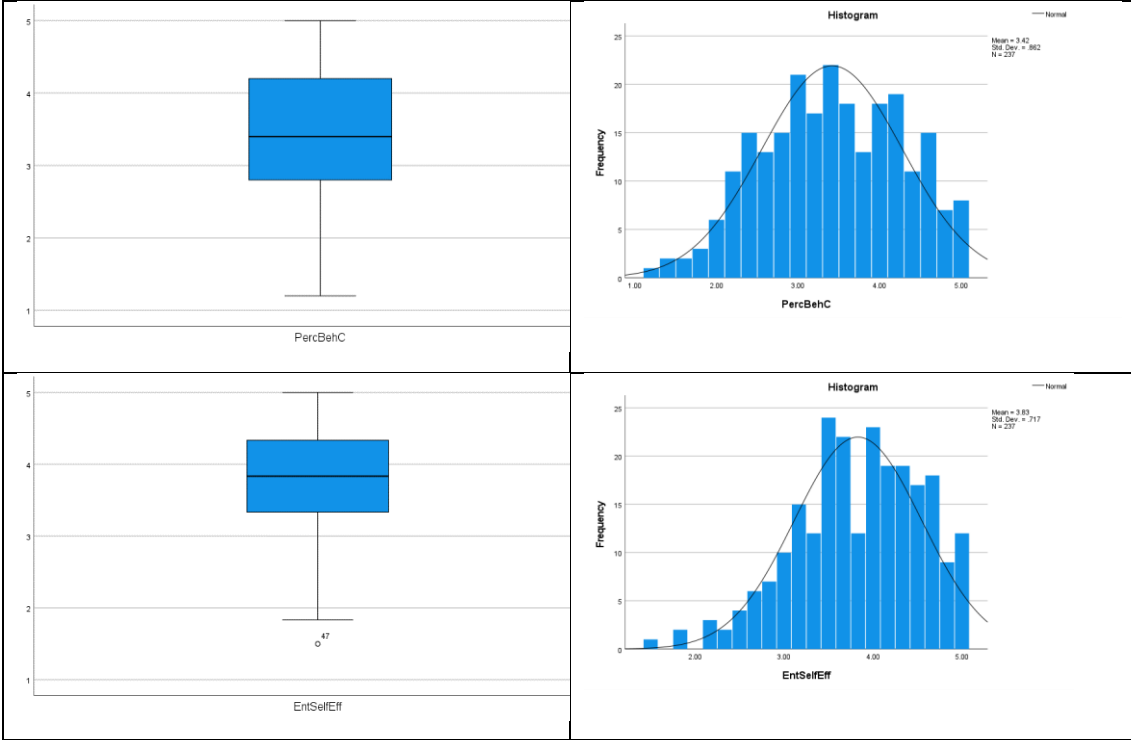
| | | | | | |
|--|---|---|---|---|---|
| <i>I can control the creation process of a new business.</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I know the necessary practical details to start a firm</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I know how to develop an entrepreneurial project</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I tried to start a business, I would have a high probability of succeeding</i> | 5 | 4 | 3 | 2 | 1 |

Entrepreneurial self-efficacy

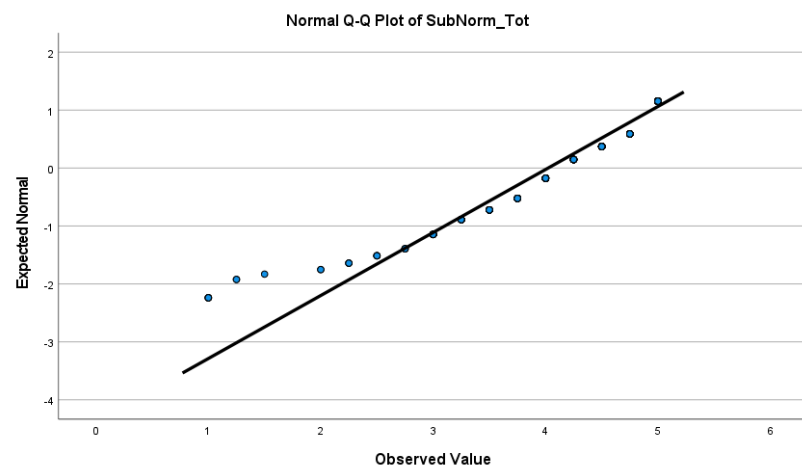
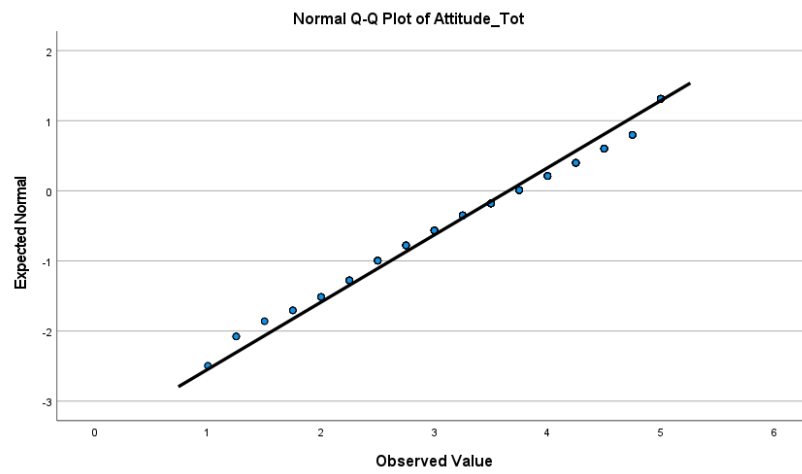
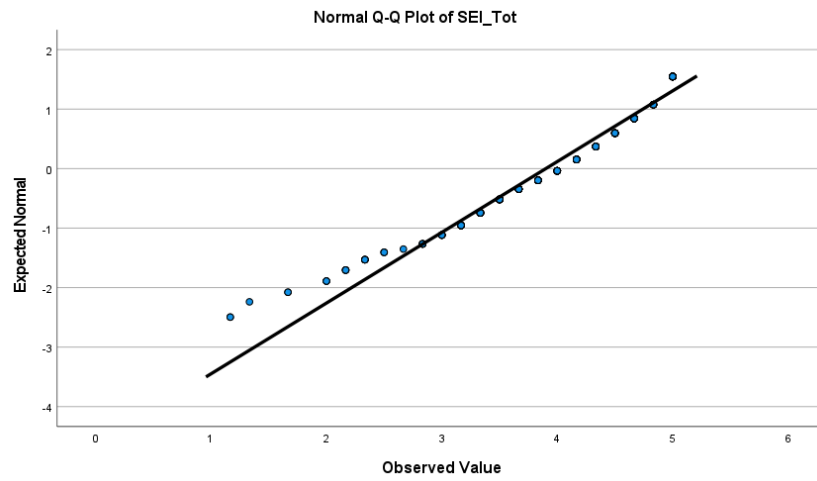
| Questions | Strongly agree | Agree | Uncertain/ not applicable | Disagree | Strongly disagree |
|--|-----------------------|--------------|--------------------------------------|-----------------|--------------------------|
| <i>To start a business and keep it working would be easy for me</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I am prepared to start a viable business</i> | 5 | 4 | 3 | 2 | 1 |
| <i>As an entrepreneur, I would have sufficient control over my business</i> | 5 | 4 | 3 | 2 | 1 |
| <i>If I tried to start a firm, I would have a high probability of succeeding</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I show great aptitude for creativity and innovation</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I show great aptitude for leadership and problem-solving</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I can develop and maintain favourable relationships with potential investors</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I can see new market opportunities for new products and services</i> | 5 | 4 | 3 | 2 | 1 |
| <i>I can develop a working environment that encourages people to try out something new</i> | 5 | 4 | 3 | 2 | 1 |

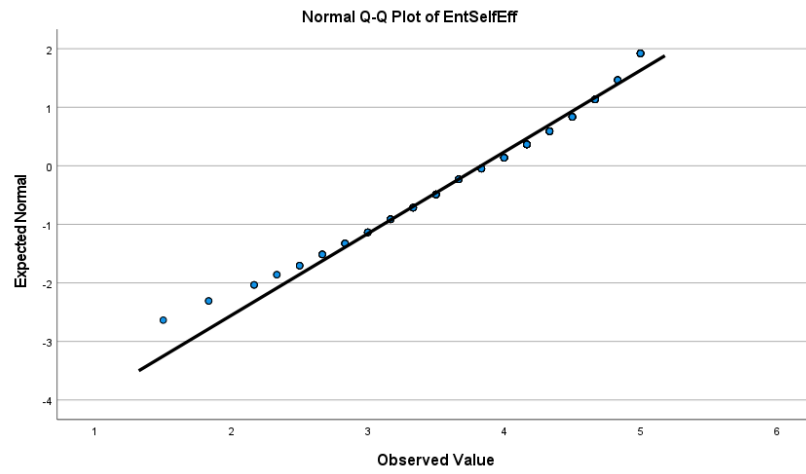
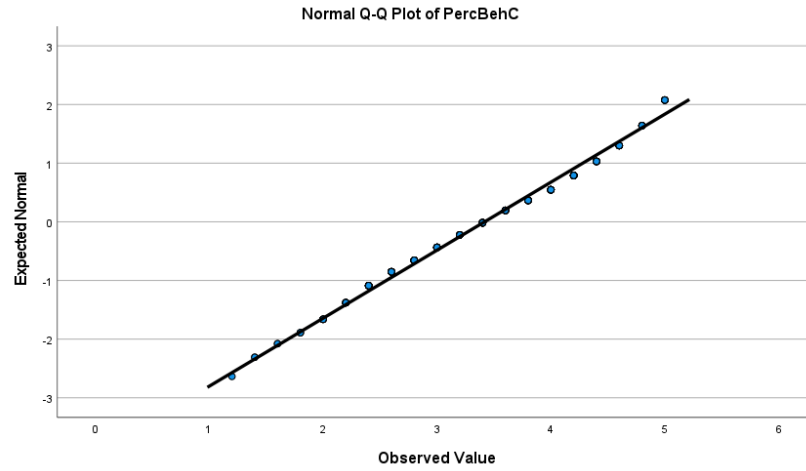
Appendix C. Normality and Outlier box plot and histogram





Appendix D. Normal Q-Q plot Results





Appendix E. Descriptive statistics

| Descriptives | | | | |
|---|--------------------------------------|-------------|------------|--------|
| | | Statistic | Std. Error | |
| Social entrepreneurial intention | Mean | 3.9001 | .05464 | |
| | 95% Confidence Interval for Mean | Lower Bound | 3.7925 | |
| | | Upper Bound | 4.0078 | |
| | 5% Trimmed Mean | 3.9557 | | |
| | Median | 4.0000 | | |
| | Variance | .707 | | |
| | Std. Deviation | .84113 | | |
| | Minimum | 1.17 | | |
| | Maximum | 5.00 | | |
| | Range | 3.83 | | |
| | Interquartile Range | 1.17 | | |
| | Skewness | -.812 | .158 | |
| | Kurtosis | .436 | .315 | |
| | Attitude | Mean | 3.6561 | .06781 |
| 95% Confidence Interval for Mean | | Lower Bound | 3.5225 | |
| | | Upper Bound | 3.7897 | |
| 5% Trimmed Mean | | 3.7061 | | |
| Median | | 3.7500 | | |
| Variance | | 1.090 | | |
| Std. Deviation | | 1.04400 | | |
| Minimum | | 1.00 | | |
| Maximum | | 5.00 | | |
| Range | | 4.00 | | |
| Interquartile Range | | 1.50 | | |
| Skewness | | -.388 | .158 | |
| Kurtosis | | -.728 | .315 | |
| Subjective norm | | Mean | 4.0222 | .05973 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.9045 | |
| | | Upper Bound | 4.1398 | |
| | 5% Trimmed Mean | 4.1108 | | |
| | Median | 4.0000 | | |
| | Variance | .846 | | |
| | Std. Deviation | .91959 | | |
| | Minimum | 1.00 | | |
| | Maximum | 5.00 | | |
| | Range | 4.00 | | |
| | Interquartile Range | 1.25 | | |
| | Skewness | -1.183 | .158 | |
| | Kurtosis | 1.537 | .315 | |
| | Perceived behavioural control | Mean | 3.4169 | .05602 |
| 95% Confidence Interval for Mean | | Lower Bound | 3.3065 | |
| | | Upper Bound | 3.5272 | |
| 5% Trimmed Mean | | 3.4272 | | |
| Median | | 3.4000 | | |
| Variance | | .744 | | |
| Std. Deviation | | .86243 | | |
| Minimum | | 1.20 | | |
| Maximum | | 5.00 | | |

| | | | | |
|--------------------------------------|----------------------------------|-------------|--------|--------|
| | Range | | 3.80 | |
| | Interquartile Range | | 1.40 | |
| | Skewness | | -.119 | .158 |
| | Kurtosis | | -.701 | .315 |
| Entrepreneurial Self-Efficacy | Mean | | 3.8305 | .04658 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.7388 | |
| | | Upper Bound | 3.9223 | |
| | 5% Trimmed Mean | | 3.8567 | |
| | Median | | 3.8333 | |
| | Variance | | .514 | |
| | Std. Deviation | | .71702 | |
| | Minimum | | 1.50 | |
| | Maximum | | 5.00 | |
| | Range | | 3.50 | |
| | Interquartile Range | | 1.00 | |
| | Skewness | | -.468 | .158 |
| | Kurtosis | | -.099 | .315 |

Appendix F. Reliability tests

Social Entrepreneurial Intention (SEI)

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| .866 | .866 | 3 |

| Item-Total Statistics | | | | | |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| SEI1 | 6.49 | 5.675 | .686 | .478 | .863 |
| SEI2 | 7.03 | 4.906 | .755 | .598 | .803 |
| SEI3 | 6.83 | 4.949 | .798 | .643 | .761 |

Antecedents of Intention: Attitude

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| .909 | .909 | 4 |

| Item-Total Statistics | | | | | |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| AIA1 | 10.90 | 10.859 | .722 | .534 | .906 |
| AIA2 | 11.05 | 9.679 | .846 | .718 | .863 |
| AIA4 | 10.69 | 10.504 | .786 | .633 | .885 |
| AIA5 | 11.23 | 9.389 | .827 | .699 | .871 |

Antecedents of intention: Subjective norms

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| .875 | .878 | 4 |

| Item-Total Statistics | | | | | |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| AISN1 | 11.99 | 7.856 | .681 | .506 | .862 |

| | | | | | |
|-------|-------|-------|------|------|------|
| AISN2 | 11.92 | 8.066 | .793 | .673 | .819 |
| AISN3 | 12.11 | 7.781 | .789 | .670 | .817 |
| AISN4 | 12.25 | 8.010 | .677 | .496 | .862 |

Antecedents of intention: Perceived behavioural control

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| .849 | .849 | 5 |

| Item-Total Statistics | | | | | |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| AIPB1 | 14.14 | 12.900 | .566 | .351 | .842 |
| AIPB2 | 13.44 | 12.502 | .657 | .442 | .818 |
| AIPB3 | 13.45 | 11.536 | .723 | .591 | .800 |
| AIPB4 | 13.84 | 11.519 | .720 | .574 | .801 |
| AIPB5 | 13.47 | 13.293 | .637 | .413 | .825 |

Entrepreneurial self-efficacy

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| .888 | .890 | 9 |

| Item-Total Statistics | | | | | |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| ESE1 | 31.97 | 30.143 | .551 | .454 | .884 |
| ESE2 | 31.11 | 28.796 | .647 | .473 | .876 |
| ESE3 | 31.07 | 30.487 | .612 | .439 | .878 |
| ESE4 | 31.41 | 29.039 | .707 | .588 | .870 |
| ESE5 | 31.21 | 28.817 | .718 | .564 | .869 |
| ESE6 | 30.80 | 31.049 | .626 | .515 | .878 |
| ESE7 | 31.04 | 30.566 | .584 | .438 | .881 |
| ESE8 | 31.27 | 29.230 | .710 | .545 | .870 |
| ESE9 | 30.86 | 30.612 | .641 | .499 | .876 |

Appendix G. Ethical clearance

| | |
|--|---------------------------------------|
| Gordon Institute of Business Science University of Pretoria | Ethical Clearance Approved |
| <p>Dear Slindokuhle Vuyiswa Ngubane,</p> <p>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.</p> <p>Ethical Clearance Form</p> <p>Kind Regards</p> | |
| <p>This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.</p> | |

Appendix H. Regression test

Attitude

| Descriptive Statistics | | | |
|------------------------|---------|----------------|-----|
| | Mean | Std. Deviation | N |
| SEI_overal | 3.7426 | 1.02136 | 237 |
| AI_Attitude | 3.7426 | 1.02136 | 237 |
| Interact_Mod_AIA_ESE | 14.8973 | 5.52389 | 237 |

| Correlations | | | | |
|---------------------|----------------------|------------|-------------|----------------------|
| | | SEI_overal | AI_Attitude | Interact_Mod_AIA_ESE |
| Pearson Correlation | SEI_overal | 1.000 | 1.000 | .912 |
| | AI_Attitude | 1.000 | 1.000 | .912 |
| | Interact_Mod_AIA_ESE | .912 | .912 | 1.000 |
| Sig. (1-tailed) | SEI_overal | . | .000 | <.001 |
| | AI_Attitude | .000 | . | .000 |
| | Interact_Mod_AIA_ESE | .000 | .000 | . |
| N | SEI_overal | 237 | 237 | 237 |
| | AI_Attitude | 237 | 237 | 237 |
| | Interact_Mod_AIA_ESE | 237 | 237 | 237 |

| Variables Entered/Removed ^a | | | |
|--|-----------------------------------|-------------------|---|
| Model | Variables Entered | Variables Removed | Method |
| 1 | AI_Attitude | | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 2 | Interact_Mod_AIA_ESE ^b | | Enter |

a. Dependent Variable: SEI_overal
b. All requested variables entered.

| Model Summary | | | | | | | | | |
|---------------|--------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | 1.000 ^a | 1.000 | 1.000 | .00000 | 1.000 | . | 1 | 235 | . |
| 2 | 1.000 ^b | 1.000 | 1.000 | .00000 | .000 | . | 1 | 234 | . |

a. Predictors: (Constant), AI_Attitude
b. Predictors: (Constant), AI_Attitude, Interact_Mod_AIA_ESE

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|---|----------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 246.188 | 1 | 246.188 | . | . ^b |
| | Residual | .000 | 235 | .000 | | |
| | Total | 246.188 | 236 | | | |

| | | | | | | |
|--|------------|---------|-----|---------|---|----------------|
| 2 | Regression | 246.188 | 2 | 123.094 | . | . ^c |
| | Residual | .000 | 234 | .000 | | |
| | Total | 246.188 | 236 | | | |
| a. Dependent Variable: SEI_overal | | | | | | |
| b. Predictors: (Constant), AI_Attitude | | | | | | |
| c. Predictors: (Constant), AI_Attitude, Interact_Mod_AIA_ESE | | | | | | |

| Coefficients ^a | | | | | | | | |
|---------------------------|----------------------|-----------------------------|------------|---------------------------|---|------|-------------------------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | .000 | .000 | | . | . | | |
| | AI_Attitude | 1.000 | .000 | 1.000 | . | . | 1.000 | 1.000 |
| 2 | (Constant) | .000 | .000 | | . | . | | |
| | AI_Attitude | 1.000 | .000 | 1.000 | . | . | .168 | 5.944 |
| | Interact_Mod_AIA_ESE | .000 | .000 | .000 | . | . | .168 | 5.944 |

a. Dependent Variable: SEI_overal

| Excluded Variables ^a | | | | | | | | |
|---------------------------------|----------------------|-------------------|---|------|---------------------|-------------------------|-------|-------------------|
| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics | | |
| | | | | | | Tolerance | VIF | Minimum Tolerance |
| 1 | Interact_Mod_AIA_ESE | .000 ^b | . | . | . | .168 | 5.944 | .168 |

a. Dependent Variable: SEI_overal

b. Predictors in the Model: (Constant), AI_Attitude

| Collinearity Diagnostics ^a | | | | | | |
|---------------------------------------|-----------|------------|-----------------|----------------------|-------------|----------------------|
| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | |
| | | | | (Constant) | AI_Attitude | Interact_Mod_AIA_ESE |
| 1 | 1 | 1.965 | 1.000 | .02 | .02 | |
| | 2 | .035 | 7.478 | .98 | .98 | |
| 2 | 1 | 2.927 | 1.000 | .01 | .00 | .00 |
| | 2 | .065 | 6.693 | .56 | .01 | .11 |
| | 3 | .007 | 20.009 | .44 | .99 | .89 |

a. Dependent Variable: SEI_overal

Subjective norms

| Descriptive Statistics | | | |
|------------------------|---------|----------------|-----|
| | Mean | Std. Deviation | N |
| SEI_overal | 3.7426 | 1.02136 | 237 |
| AI_SubNorm_Tot | 4.0222 | .91959 | 237 |
| Interact_Mod_AIA_ESE | 14.8973 | 5.52389 | 237 |

| Correlations | | | | |
|---------------------|----------------------|------------|----------------|----------------------|
| | | SEI_overal | AI_SubNorm_Tot | Interact_Mod_AIA_ESE |
| Pearson Correlation | SEI_overal | 1.000 | .387 | .912 |
| | AI_SubNorm_Tot | .387 | 1.000 | .421 |
| | Interact_Mod_AIA_ESE | .912 | .421 | 1.000 |
| Sig. (1-tailed) | SEI_overal | . | <.001 | <.001 |
| | AI_SubNorm_Tot | .000 | . | .000 |
| | Interact_Mod_AIA_ESE | .000 | .000 | . |
| N | SEI_overal | 237 | 237 | 237 |
| | AI_SubNorm_Tot | 237 | 237 | 237 |
| | Interact_Mod_AIA_ESE | 237 | 237 | 237 |

| Variables Entered/Removed ^a | | | |
|--|-----------------------------------|-------------------|---|
| Model | Variables Entered | Variables Removed | Method |
| 1 | AI_SubNorm_Tot | . | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 2 | Interact_Mod_AIA_ESE ^b | . | Enter |

a. Dependent Variable: SEI_overal
b. All requested variables entered.

| Model Summary | | | | | | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .387 ^a | .150 | .146 | .94364 | .150 | 41.475 | 1 | 235 | <.001 |
| 2 | .912 ^b | .832 | .830 | .42071 | .682 | 948.266 | 1 | 234 | <.001 |

a. Predictors: (Constant), AI_SubNorm_Tot
b. Predictors: (Constant), AI_SubNorm_Tot, Interact_Mod_AIA_ESE

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|---------|--------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 36.931 | 1 | 36.931 | 41.475 | <.001 ^b |
| | Residual | 209.257 | 235 | .890 | | |
| | Total | 246.188 | 236 | | | |
| 2 | Regression | 204.771 | 2 | 102.386 | 578.461 | <.001 ^c |
| | Residual | 41.417 | 234 | .177 | | |
| | Total | 246.188 | 236 | | | |

a. Dependent Variable: SEI_overal
b. Predictors: (Constant), AI_SubNorm_Tot

c. Predictors: (Constant), AI_SubNorm_Tot, Interact_Mod_AIA_ESE

| Coefficients ^a | | | | | | | | |
|---------------------------|----------------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 2.012 | .276 | | 7.303 | <.001 | | |
| | AI_SubNorm_Tot | .430 | .067 | .387 | 6.440 | <.001 | 1.000 | 1.000 |
| 2 | (Constant) | 1.218 | .126 | | 9.704 | <.001 | | |
| | AI_SubNorm_Tot | .004 | .033 | .004 | .126 | .900 | .822 | 1.216 |
| | Interact_Mod_AIA_ESE | .168 | .005 | .910 | 30.794 | <.001 | .822 | 1.216 |

a. Dependent Variable: SEI_overal

| Excluded Variables ^a | | | | | | | | |
|---------------------------------|----------------------|-------------------|--------|-------|---------------------|-------------------------|-------|-------------------|
| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics | | |
| | | | | | | Tolerance | VIF | Minimum Tolerance |
| 1 | Interact_Mod_AIA_ESE | .910 ^b | 30.794 | <.001 | .896 | .822 | 1.216 | .822 |

a. Dependent Variable: SEI_overal
b. Predictors in the Model: (Constant), AI_SubNorm_Tot

| Collinearity Diagnostics ^a | | | | | | | |
|---------------------------------------|-----------|------------|-----------------|----------------------|----------------|----------------------|--|
| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | | |
| | | | | (Constant) | AI_SubNorm_Tot | Interact_Mod_AIA_ESE | |
| 1 | 1 | 1.975 | 1.000 | .01 | .01 | | |
| | 2 | .025 | 8.879 | .99 | .99 | | |
| 2 | 1 | 2.907 | 1.000 | .01 | .00 | .01 | |
| | 2 | .069 | 6.489 | .16 | .06 | .95 | |
| | 3 | .024 | 10.909 | .83 | .94 | .04 | |

a. Dependent Variable: SEI_overal

Perceived behavioural control

| Descriptive Statistics | | | |
|------------------------|---------|----------------|-----|
| | Mean | Std. Deviation | N |
| SEI_Tot | 3.9001 | .84113 | 237 |
| PercBehC | 3.4169 | .86243 | 237 |
| Integr_PBC_ESE | 13.5617 | 5.34445 | 237 |

| Correlations | | | | |
|---------------------|---------|---------|----------|----------------|
| | | SEI_Tot | PercBehC | Integr_PBC_ESE |
| Pearson Correlation | SEI_Tot | 1.000 | .451 | .526 |

| | | | | |
|-----------------|----------------|------|-------|-------|
| | PercBehC | .451 | 1.000 | .957 |
| | Integr_PBC_ESE | .526 | .957 | 1.000 |
| Sig. (1-tailed) | SEI_Tot | . | <.001 | <.001 |
| | PercBehC | .000 | . | .000 |
| | Integr_PBC_ESE | .000 | .000 | . |
| N | SEI_Tot | 237 | 237 | 237 |
| | PercBehC | 237 | 237 | 237 |
| | Integr_PBC_ESE | 237 | 237 | 237 |

| Variables Entered/Removed ^a | | | |
|--|-----------------------------|-------------------|---|
| Model | Variables Entered | Variables Removed | Method |
| 1 | PercBehC | . | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 2 | Integr_PBC_ESE ^b | . | Enter |

a. Dependent Variable: SEI_Tot
b. All requested variables entered.

| Model Summary | | | | | | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .451 ^a | .203 | .200 | .75243 | .203 | 59.918 | 1 | 235 | <.001 |
| 2 | .557 ^b | .311 | .305 | .70128 | .108 | 36.538 | 1 | 234 | <.001 |

a. Predictors: (Constant), PercBehC
b. Predictors: (Constant), PercBehC, Integr_PBC_ESE

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|--------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 33.923 | 1 | 33.923 | 59.918 | <.001 ^b |
| | Residual | 133.047 | 235 | .566 | | |
| | Total | 166.970 | 236 | | | |
| 2 | Regression | 51.892 | 2 | 25.946 | 52.759 | <.001 ^c |
| | Residual | 115.078 | 234 | .492 | | |
| | Total | 166.970 | 236 | | | |

a. Dependent Variable: SEI_Tot
b. Predictors: (Constant), PercBehC
c. Predictors: (Constant), PercBehC, Integr_PBC_ESE

| Coefficients ^a | | | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 2.398 | .200 | | 11.983 | <.001 | | |
| | PercBehC | .440 | .057 | .451 | 7.741 | <.001 | 1.000 | 1.000 |

| | | | | | | | | |
|--------------------------------|----------------|-------|------|-------|--------|-------|------|--------|
| 2 | (Constant) | 3.594 | .272 | | 13.219 | <.001 | | |
| | PercBehC | -.618 | .183 | -.634 | -3.381 | <.001 | .084 | 11.926 |
| | Integr_PBC_ESE | .178 | .029 | 1.133 | 6.045 | <.001 | .084 | 11.926 |
| a. Dependent Variable: SEI_Tot | | | | | | | | |

| Model Summary | | | | | | | | | |
|---|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .451 ^a | .203 | .200 | .75243 | .203 | 59.918 | 1 | 235 | <.001 |
| 2 | .557 ^b | .311 | .305 | .70128 | .108 | 36.538 | 1 | 234 | <.001 |
| a. Predictors: (Constant), PercBehC | | | | | | | | | |
| b. Predictors: (Constant), PercBehC, Integr_PBC_ESE | | | | | | | | | |

| ANOVA ^a | | | | | | |
|---|------------|----------------|-----|-------------|--------|--------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 33.923 | 1 | 33.923 | 59.918 | <.001 ^b |
| | Residual | 133.047 | 235 | .566 | | |
| | Total | 166.970 | 236 | | | |
| 2 | Regression | 51.892 | 2 | 25.946 | 52.759 | <.001 ^c |
| | Residual | 115.078 | 234 | .492 | | |
| | Total | 166.970 | 236 | | | |
| a. Dependent Variable: SEI_Tot | | | | | | |
| b. Predictors: (Constant), PercBehC | | | | | | |
| c. Predictors: (Constant), PercBehC, Integr_PBC_ESE | | | | | | |

| Coefficients ^a | | | | | | | | |
|--------------------------------|----------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|--------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 2.398 | .200 | | 11.983 | <.001 | | |
| | PercBehC | .440 | .057 | .451 | 7.741 | <.001 | 1.000 | 1.000 |
| 2 | (Constant) | 3.594 | .272 | | 13.219 | <.001 | | |
| | PercBehC | -.618 | .183 | -.634 | -3.381 | <.001 | .084 | 11.926 |
| | Integr_PBC_ESE | .178 | .029 | 1.133 | 6.045 | <.001 | .084 | 11.926 |
| a. Dependent Variable: SEI_Tot | | | | | | | | |

| Excluded Variables ^a | | | | | | | | |
|---------------------------------|----------------|--------------------|-------|-------|---------------------|-------------------------|--------|-------------------|
| Model | | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics | | |
| | | | | | | Tolerance | VIF | Minimum Tolerance |
| 1 | Integr_PBC_ESE | 1.133 ^b | 6.045 | <.001 | .367 | .084 | 11.926 | .084 |

| |
|--|
| a. Dependent Variable: SEI_Tot |
| b. Predictors in the Model: (Constant), PercBehC |

| Collinearity Diagnostics ^a | | | | | | |
|---------------------------------------|-----------|------------|-----------------|----------------------|----------|--------------------|
| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | |
| | | | | (Constant) | PercBehC | Integr_PBC_ES E |
| 1 | 1 | 1.970 | 1.000 | .02 | .02 | |
| | 2 | .030 | 8.065 | .98 | .98 | |
| 2 | 1 | 2.926 | 1.000 | .00 | .00 | .00 |
| | 2 | .071 | 6.418 | .23 | .00 | .06 |
| | 3 | .003 | 30.123 | .77 | 1.00 | .94 |

a. Dependent Variable: SEI_Tot

Appendix I. Consent form within questionnaire

Questionnaire with consent section

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on the impact of social entrepreneurial antecedents on social entrepreneurial intentions of post-graduate students, as well as the moderating role of entrepreneurial self-efficacy. To that end, you are asked to look at a website and complete a survey about that site. This will help us better understand social entrepreneurial intention and should take no more than 20 minutes of your time.

Your participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous and only aggregated data will be reported. By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact my supervisor or me.

Our details are provided below.

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Prof. Anastacia Mamabolo
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