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# The influence of social norms, entrepreneurial capacity and academic support on entrepreneurial intention: Evidence from University students in Western Cape, South Africa


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# Preface

My enormous interest in youth development led me to write this thesis. Due to my experience with adolescents, I recognized the importance of gaining a deeper insight into the inner drive of the Generation Z to be able to support them with a smooth integration into the work life. On the other hand, the ability to express individual thoughts about a desirable future has become more important than ever in this rapidly changing environment. The topic of this thesis also ties personally to my passion of fostering youth development, through my contribution as a facilitator on behalf of the educational initiative GermanDream.

During my study period at Cape Peninsula University of Technology in Cape Town, a dependence on the host university in terms of accessibility to the pertaining objects under investigation was the most critical point. My gratitude goes to the Head of Department for Entrepreneurship, Mr. Cupido, who acknowledged my inquiry about the empirical research design without delay. This made it possible to finally spread my online-based survey to the undergraduates, who were overall very keen to participate in this study. Personally, I would like to give my gratitude to the four individuals, who voluntarily participated in the focus group discussion in an energetic way.

The journey of finding an appropriate scope and concurrently determining a methodological instrument was challenging, since it was my first time to conduct research in a foreign country and applying the mixed-methods research design. However, this marked the next step on my way to becoming a more advanced researcher before closing the academic chapter.

I acknowledge further every intervention and assistance from my supervisor Prof. Dr. Bayer, discussions with other students from the ESD programme who helped in contributing entrepreneurial insights from other cultures and especially to Maja and Phyllis for their endeavours to provide me with critical and unbiased feedback.

Memmingen, February 2026, Lukas Jütten

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# List of Abbreviations

ATB ..... Attitude toward the behaviour
ATLAS.ti ..... Software programme for thematical coding
CPUT ..... Cape Peninsula University of Technology
DHET ..... Department of Higher Education and Training
EDHE ..... Entrepreneurship Development in Higher Education
EFC ..... Entrepreneurial Framework Condition
EI ..... Entrepreneurial Intention
GEM ..... Global Entrepreneurship Management
HEI ..... Higher Education Institutions
IGWG ..... Intergovernmental Working Group
JMP ..... Statistics Software
NYDA ..... National Youth Development Agency
OECD ..... Organisation for Economic Co-operation and Development
PAS ..... Perceived Academic Support
PBC ..... Perceived behavioural control
PEC ..... Perceived Entrepreneurial Capacity
PSN ..... Perceived Social Norms
RMSE ..... Root Mean Square Error
SD ..... Standard Deviation
SHAPE ..... Shifting Hope, Activating Potential Entrepreneurship
SMME's ..... small, micro and medium-sized enterprises
SN ..... Subjective Norm
TPB ..... Theory of Planned Behaviour
UN ..... United Nations

## Abstract

This study investigates the influence of Perceived Entrepreneurial Capacity (*PEC*), Perceived Social Norms (*PSN*) and Perceived Academic Support (*PAS*) on Entrepreneurial Intention (*EI*) among undergraduate students in the Western Cape region of South Africa.

The study applies a mixed-methods research design using an explanatory sequential approach. Quantitative data were collected through a web-based survey among entrepreneurship students, followed by qualitative data obtained from a focus group discussion with the same population.

The results indicate that *PEC* and *PAS* have a significant positive influence on *EI*, while *PSN* show a weaker and more differentiated effect.

The study contributes to entrepreneurship research in developing country contexts by providing empirical evidence from South Africa and highlights the critical role of Higher Education Institutions (HEI) in fostering *EI*. The findings suggest that strengthening academic support systems and individual entrepreneurial capacities is essential for promoting youth entrepreneurship within structurally constrained environments.



**Keywords:** Youth Entrepreneurship, PSN, PEC, PAS, EI, Gender-related stereotypes, Mixed-methods design

# 1 Introduction

According to the GEM report from 2022, the intention to start a business in South Africa is lower than in other countries with a comparable annual income of less than $20,000. African countries demonstrated 40% in this regard on average, whereas the equivalent value in South Africa is considerably lower at around 10% *(Bowmaker-Falconer et al*., 2022/2023, p. 47). A long-term survey showed that this indicator has remained consistently low in South Africa for 20 years (Bowmaker-Falconer *et al.*, 2022/2023, p. 37). Although a stagnant entrepreneurial culture appears to have permeated society, it is not possible to extrapolate an immediate prognosis for the coming years. The question must therefore be asked as to why very few young people seem to initiate the desire to start their own businesses. Answering this question is highly relevant because of excessive youth unemployment of over 60% (OECD, 2025, p. 20).

A review paper from 2025 provides ample evidence of a multi-layered sociological phenomenon. The review explored four barriers that undermine youth entrepreneurship in Sub-Saharan countries. These barriers affect the macro, meso and micro levels and are ultimate evidence of a complex problem with multidimensional causes (Ofosu-Appiah *et al*., 2025, pp. 10-15).

A closer examination of the situation in South Africa leads to the conclusion that socio-economic disadvantages have not been overcome despite the abolition of apartheid (Zayd & Henry, 2017, p. 77). Several researchers pointed out that shortcomings in education policies in particular are the cause of profound social inequalities (McKeever, 2017, p. 115; Zayd & Henry, 2017, pp. 96-97). Efforts to provide non-judgmental, high-quality academic education are undermined by the entrenchment of 26 public universities in corrupt activities (Ngcamu & Mantzaris, 2023, p. 7).

In terms of well-structured educational policies, it can be stated that a few institutions are firmly established in South Africa. The South African Department of Higher Education and Training (DHET) and the National Youth Development Agency (NYDA) are implementing various long-term strategies to promote youth development (Akoobhai & Bambo, 2024; NYDA, 2021/2022, p. 31; Westhuizen, 2024, pp. 100-111). These strategies are designed to make entrepreneurship

education more attractive by lobbying and engaging with stakeholders. However, there are open questions as to the extent to which a single university can encourage young people to take the step into self-employment. Female South Africans in particular face difficulties, as they often experience significant distrust from professors in their academic careers (Duby *et al*., 2022, pp. 4-11).

Conclusively, there is still a lack of studies on entrepreneurial education at specific South African universities. This study addresses this gap by examining students' perceptions of academic support in relation to entrepreneurship at the Cape Peninsula University of Technology (CPUT).

The preceding study by Ofosu-Appiah *et al*. (2025, pp. 10-15) refers, on the meso level, to circumstances in the immediate local environment. To delineate this study, the district of Western Cape was defined as the spatial unit of interest. However, the extent to which social norms within the Western Cape are related to youth *EI* has not yet been elucidated. Despite social norms in South Africa being classified as “insufficient” in the context of entrepreneurial conditions, no coherent conclusions can be drawn regarding the entrepreneurial ambitions of today's generations (Bowmaker-Falconer *et al*., 2022/2023, p. 102). Therefore, the study’s novelty on the meso-level concerns the prevalent social norms in the Western Cape that encourage or discourage individuals from developing *EI*.

At the micro level, the referenced study considered the personal characteristics of each individual (Ofosu-Appiah *et al.*, 2025). Pertaining to this field, the GEM report publishes annual figures to assess people's individual characteristics. In this respect, the self-perception of one's own capabilities and opportunities in the field of entrepreneurship (cf. Figure 1) is regarded as far more pronounced today than it was two decades ago, in comparison to the fear of failure (Bowmaker-Falconer *et al.*, 2024, p. 23). However, the positive sentiments are not reflected by the number of people who actually want to start a business (Bowmaker-Falconer *et al.*, 2022/2023, p. 45). This reveals a particular gap in the research literature, as there are no stringent findings in light of the inconsistency between a good entrepreneurial atmosphere and the fear of failure at the same time.

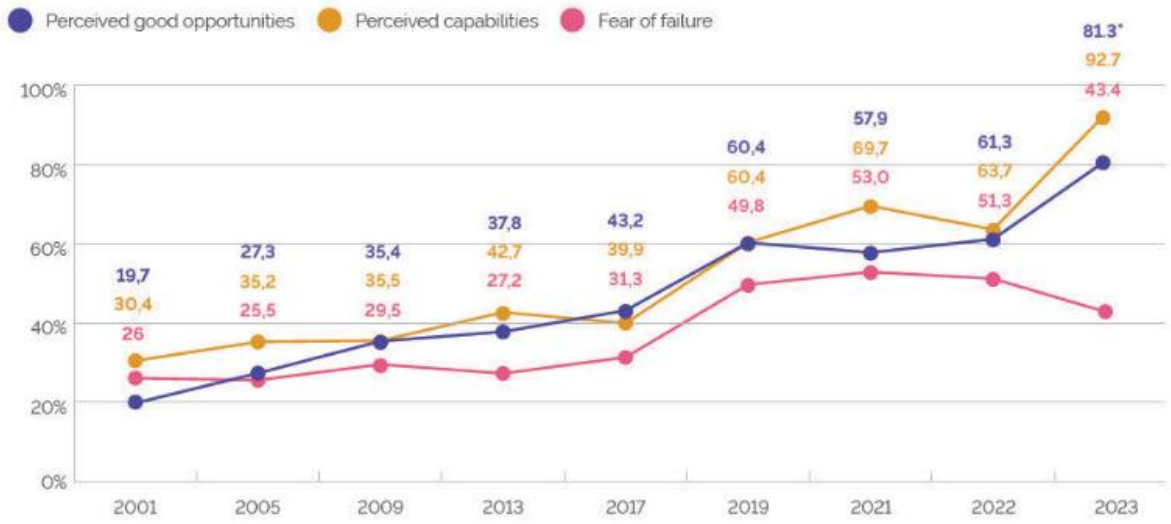


Figure 1: Entrepreneurial Mindset (Bowmaker-Falconer *et al.*, 2024, p. 23) *Read as of: 81,3% of South African adults in 2023 perceived good entrepreneurial opportunities in their area.

Resulting from this understanding of the problem, the interrelated factors Perceived Social Norms (*PSN)*, Perceived Entrepreneurial Capacity (*PEC)* and Perceived Academic Support (*PAS*) have emerged as critical to evoking Entrepreneurial Intention (*EI)*. Together, these dimensions provide a coherent framework to analyse how youth (aged 18 – 35) in the Western Cape evaluate their *EI* within an academic environment. This directly leads to the three research questions, which are going to be examined in the following study:

1. To what extent does *PEC* predict *EI* among undergraduate entrepreneurship students?
2. How does *PSN* influence the *EI* of undergraduate entrepreneurship students within the Western Cape?
3. To what extent does *PAS* influence the *EI* of undergraduate entrepreneurship students at CPUT?

The primary goal of this study is to explore the association between *PEC* on the micro level, *PSN* and *PAS* on the meso level and *EI* among entrepreneurship students in Western Cape, South Africa. Due to the spatially and temporally restricted scope of this study, the overarching societal level cannot be investigated. Secondly, an explicit objective is to illuminate the students' perspectives on their own entrepreneurial education. Thirdly, the study aims to emphasize a stronger

awareness of social and gender norms with regard to youth entrepreneurship by uncovering the prevailing social norms within the Western Cape.

Most urgently, a contemplation of the entrepreneurial ecosystem from the perspective of numerous individuals is required, which should be aggregated in order to get a distinct picture of youth perceptions regarding entrepreneurship. The study finally aims to solve the overarching problem that arose from the inconsistencies between the positive entrepreneurial prospects from the collective and the diametrically opposed *EI* in South Africa (Bowmaker-Falconer *et al.*, 2022/2023, p. 45; 2024, p. 23). To be able to ground the fields of interest in a methodologically solid foundation, a mixed-methods approach comprising quantitative and qualitative elements was applied. This method allows for the merging of initial quantitative findings from survey distribution with qualitative focus groups.

In section 2.1, this study contributes to the literature by demonstrating the most pressing barriers through the lens of South African youth. The subsequent section 2.2 sheds light on the underlying theoretical constructs that have been utilized for empirical research studies. The theoretical embedding interconnects the Theory of Planned Behaviour (TPB) with the contextualised framework of this study. Once the construct is firmly grounded and aligned with the fields of interest, a specific delineation of each term rounds off the theoretical fundament in section 2.3.

Since this study addresses individuals who verbally report their own experiences, the consequences of erroneous empirical deductions have to be adequately discussed in section 2.4. Gender-related stereotypes have to be illuminated as a conclusion out of the stagnant equality endeavours (Section 2.5). Thereafter, the hypotheses in section 2.6 synthesize the findings from the literature review, before the empirical approach of this study is presented in chapter 3, followed by the results and the discussion in the end.

# 2 Literature Review

## 2.1 Barriers for Youth Entrepreneurship in South Africa

Forecast figures indicate that Sub-Saharan Africa will experience a significant increase in its youth population (15–24 years old), estimated to exceed 60% of its total population by 2050 (Zulu *et al.*, 2021, p. 196). These demographic trends pose significant challenges to South Africa, since the majority of its workforce has difficulty finding employment in the formal sector (Sakala, 2017, p. 72). Given that unemployment has reached record highs in recent years, the need for appropriate interventions to support young people is urgent. Moreover, youth unemployment in South Africa is substantially higher than in the average African country (OECD, 2025, p. 20). Young people in particular face adverse effects due to economic stagnation, which could lead to social discord or extreme poverty at an individual level, as well as a loss of future human capital at a societal level (Mabungela & Davids, 2024, p. 102).

The governmental institution NYDA in South Africa identified that a limited resource allocation to youth programmes by the public and private sectors reinforced the structural disadvantage of youth in the labour market (NYDA, 2021/2022, p. 18). Such deficiencies genuinely undermine the full economic potential of South Africa. To counteract the imminent disadvantages for youth in South Africa, NYDA aims to install an interface between the coordination and the execution of youth programmes (NYDA, 2021/2022, pp. 17-24). Other institutions like Entrepreneurship Development in Higher Education (EDHE) are aiming to implement student entrepreneurship in each of the 26 South African universities (Universities South Africa, 2024, p. 26). These governmental interventions could be highly efficacious as a supportive measure to alleviate the aforementioned problems.

Apart from official state interventions, universities are key players in reducing youth unemployment by equipping young students with the knowledge of setting up organisations and managing them successfully (Musariwa & Tinonetsana, 2023, p. 8). To harness entrepreneurship at large, South Africa relies on well-educated young people who are aware of the required business management

skills. However, the latest figures state that only 45 % of men and 46 % of women aged 25 – 64 years achieved more than an upper secondary education, which is rather low in comparison to the average OECD country (OECD, 2025, p. 54). Besides the low share of graduates with a tertiary degree, the burden of extensive informal employment and the separation of public and private resources amplify the entry barriers into the job market after school (OECD, 2025, p. 65). This goes hand in hand with the findings of Atsan, who recognized the need for multi-dimensional coordination mechanisms to support practical business skills of young people (Atsan, 2022, pp. 529-530).

To reduce the persistent inequalities in the educational realms, a multi-faceted ecosystem was initiated by Westhuizen in the periphery of Cape Town with a strong focus on youth entrepreneurship (Westhuizen, 2024, pp. 12-15). The success of this programme is yet to be determined, whereby in addition to public policies, it may act as a catalyst by launching large entrepreneurial programmes and initiatives for a vast group of young people. Taking the geographical conditions into account, the Western Cape lacks a dedicated strategy on how to foster youth *EI* in the coming years. The latest GEM report (2024) indicates that thriving entrepreneurial conditions are not visible in the South African region (Bowmaker-Falconer *et al*., 2024, pp. 71-72). Even on the societal level, South Africa underperformed in the Entrepreneurial Framework Condition test (EFC) against other countries of the same income range. The examination of 13 distinct attributes provided evidence that countries with an average income below $20,000 per annum consistently achieved better outcomes than South Africa (Bowmaker-Falconer *et al.*, 2024, pp. 72-76).

Repercussions of these structural inequalities are extremely pronounced in the field of entrepreneurship, as normative expectations are diverging from the actual figures regarding *EI*. Correspondingly, the GEM report demonstrated that almost half of the population considers the fear of failure to be high. However, this figure does not decline significantly among South Africans, who are already engaged in entrepreneurial activities (Bowmaker-Falconer *et al.*, 2022/2023, pp. 25-27). This suggests that a low risk propensity could prevent people from starting a business and does not diminish once they are operating as entrepreneurs. To counteract

this trend, the next section proposes an appropriate model, which encompasses the necessary antecedents to release *EI* among youth.

## 2.2 Utilisation of Theoretical Frameworks

The TPB (cf. Figure 2) developed by Ajzen (1991) marks the starting point for this study. Additionally, this study was influenced by the adapted TPB of Ephrem *et al*. (2019), and the structural model of Pinheiro *et al*. (2022).

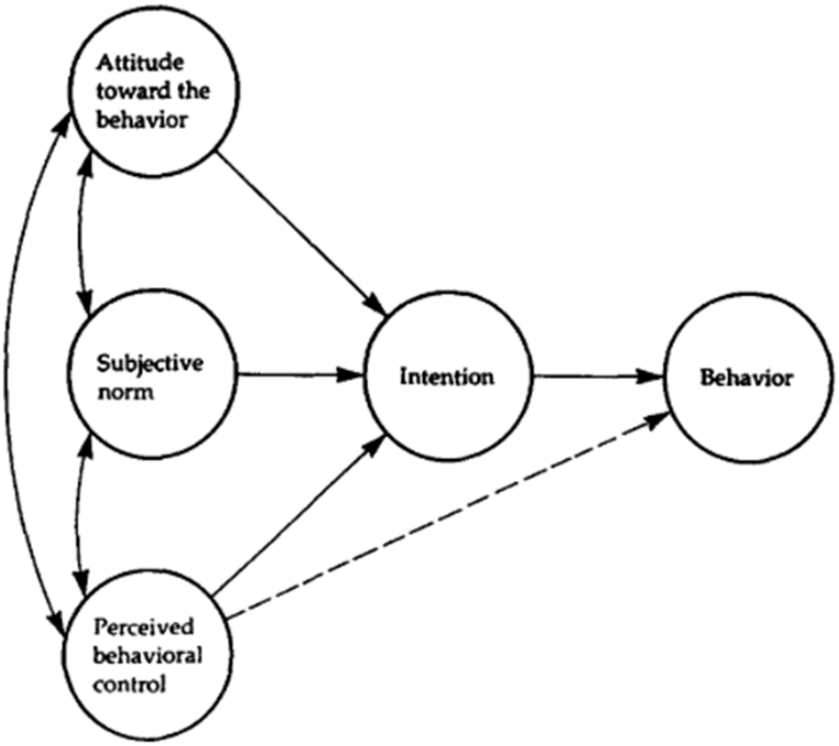


Figure 2: TPB model (Ajzen, 1991, p. 182)

The TPB serves as the basis for developing the initial construct, as well as the research questions and hypotheses. The model developed by Ajzen (1991, p. 182) emphasizes the antecedents attitude toward the behaviour (ATB), subjective norm (SN) and perceived behavioural control (PBC), which evoke intention and culminate in behaviour. Once an intention to act has been established, the corresponding behaviour might follow as a direct result. The entire model describes human behaviour from a socio-psychological perspective (Ajzen, 1991, p. 179). It is still widely acknowledged in its generic form but is constantly adjusted

to incorporate emerging scientific findings that are relevant to the scope of this study.

ATB describes the extent to which an individual forms a positive or negative evaluation of a specific issue (Ajzen, 1991, p. 188). It is not considered as a variable that might exert an effect on *EI* in this study. This is because it has been demonstrated that entrepreneurial knowledge strongly interferes with the attitude towards entrepreneurship and is thus not a distinct variable (Miralles *et al.*, 2016, pp. 809-810). Secondly, Ajzen himself strongly articulated that individuals incrementally develop attitudes anchored in deeply held behavioural beliefs (Ajzen, 1991, p. 189). Due to intersectionality with other technical terms, ATB cannot be used as a variable to frame this study.

To replace the excluded factor ATB, Pinheiro *et al.* introduced the necessity of academia as a critical factor for educating entrepreneurs. They conducted a quantitative study in Brazil with university students and found that universities in developing countries are fundamental for young entrepreneurs, providing co-embedded economic systems and integrating students into entrepreneurial activities. Furthermore, they recognised a strong linkage between academic support and a favourable social environment, e.g. supportive network, family and friends (Pinheiro *et al.*, 2022, pp. 746-750).

Additionally, academia represents a contextually original element, as the University of KwaZulu-Natal in the eastern part of South Africa has recently launched an entire ecosystem dedicated to youth entrepreneurship (Westhuizen, 2024, p. 6). According to their SHAPE programme, educational institutions act as facilitators during the process of shaping entrepreneurial thoughts (Westhuizen, 2024, pp. 52-64). Similarly, Hallam *et al.* (2017, pp. 88-89) stated that these new emerging ecosystems require a corresponding cultural equivalent in academia, which thereby explains the precise analysis of students' perceptions in this regard. In conclusion, *PAS* serves as an antecedent of *EI*, given that study participants are all embedded in an academic environment.

The second variable PBC is the equivalent of an individual’s confidence in successfully operating a business (Awal *et al.*, 2025, p. 3). Whereas the meaning of PBC initially referred to the level of confidence, it has now been extended to

factors like self-efficacy and resilience (Ephrem *et al.*, 2019, p. 975). These additional factors are considered as core elements of human agency to systematically act amid complex situations (Bowmaker-Falconer *et al.*, 2022/2023, p. 98; Roux *et al.*, 2006, p. 57). In accordance, a case study about South Africa demonstrated that the existence of entrepreneurial skills is considered as decisive for companies to be able to flourish, whereby the absence of such skills deteriorates the viability rate (Marivate, 2014, p. 70). In summary, the nomenclature was adapted to *PEC*, as it amalgamates the inherent meanings provided by the aforementioned authors.

*PSN,* as the third antecedent, is viewed as crucial for sparking *EI*, as outlined by Social Norms Theory (Berkowitz, 2004, p. 12). Anthenien *et al.* observed that an alignment between common norms and individual behaviour mirrors a rational outcome for human beings (Anthenien *et al.*, 2018, pp. 306-307). Ikuenobe (2006, p.59) argued that individualistic and collectivist norms across African nations are highly distinct and do not allow for a general conclusion. *Ubuntu* functions in this context as an overarching philosophy that views the collective as a reference group through which the community receives approval or disapproval for certain actions (Bukuluki, 2024, p. 123). Consequently, *PSN* must be investigated as a variable in this study, as it represents an important influencing factor for triggering *EI*.

Based on the theoretical considerations outlined above, this study focuses on *PEC*, *PSN,* and *PAS* as key antecedents of *EI*, as illustrated in the figure below (cf. Figure 3). The white fields are not under investigation, as they refer to potential actions following the formation of *EI*. The following section meticulously scrutinises each of the three independent variables that are crucial to the emerging conceptual framework.

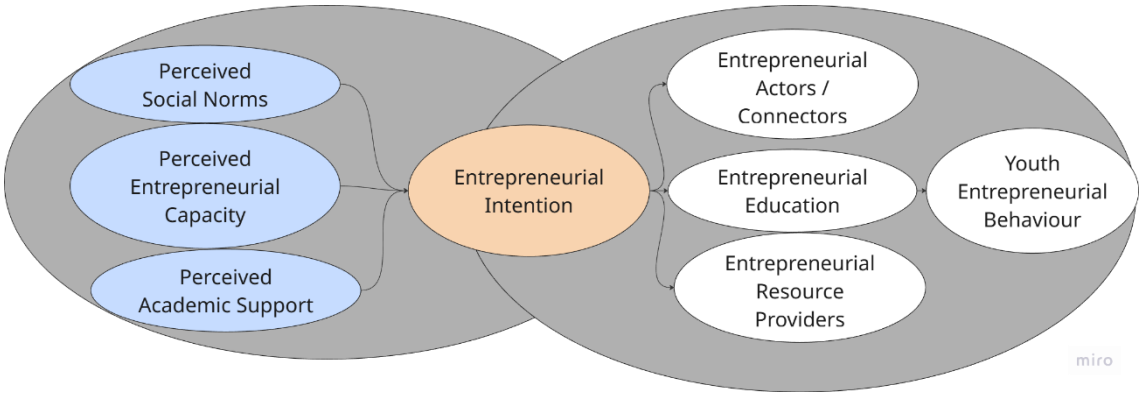


Figure 3: Proposed Framework, based on the work of Ajzen (1991), Ephrem *et al.* (2019) and Pinheiro *et al.* (2022)

## 2.3 Antecedents of Entrepreneurial Intention

### 2.3.1 Perceived Social Norms

A social norm is an unwritten assumption regarding commonly accepted behaviour within a society, which is shared by the majority of a given population (Onyemaechi, 2024, p. 973). To break this further down, a distinction between descriptive and injunctive norms has been widely endorsed in the social sciences. Whereas descriptive norms refer to the widely accepted beliefs of a reference group, injunctive norms relate to the approval or disapproval of others (Anthenien *et al.*, 2018, p. 306).

Apart from this, the United Nations (UN) defines two antecedents for social norms, that refer, on the one hand, to the applicability and awareness of a specific norm. Secondly, these antecedents comprise the expectation by individuals that a majority of their peer group would conform to this norm (Sood *et al.*, 2020, p. 14).

By illuminating the stringency of norms, Berkowitz (2004, p. 5) discovered a gap between actual and perceived norms within a society. As a phenomenon, he illuminated the misperception of beliefs and actions of others within social groups (Berkowitz, 2004, pp. 7-12). As a consequence of the observed features, Berkowitz developed the Social Norms Theory to postulate a correct estimation about the likely behaviour of his patients (Berkowitz, 2004, p. 16). The related theory identifies two distinct scenarios in which social norms are typically misperceived.

Since this theory entails the repercussions of such misperceptions, a section (cf. 2.4) is separately dedicated to misperceptions in the context of youth entrepreneurship.

### 2.3.2 Perceived Entrepreneurial Capacity

Entrepreneurial capacity was used as a variable in a study that measured youth entrepreneurial participation in the Gauteng province of South Africa. The referring author understood this term as the "ability or competence of entrepreneurs in operating any enterprise" (Elizabeth *et al.*, 2020, p. 88).

In accordance with this, entrepreneurial capacity also describes the "possession of abilities necessary for the starting and nurturing to growth of a new business, especially in a competitive environment" (Jayeoba, 2015, p. 222). Both definitions suggest that the operability regarding entrepreneurial tasks is mainly associated with individual competencies.

The Human Capital Theory provides a blueprint to classify those competencies theoretically, as it categorises human beings by their capabilities of gaining skills, knowledge or abilities in the course of their life (Soonsan *et al.*, 2025, p. 3). To break this down, human capital can be defined as the aggregation of knowledge and, alongside economic, social and psychological capital, represents an essential component of an individual's capabilities (Ephrem *et al.*, 2019, p. 967).

### 2.3.3 Perceived Academic Support

The emergence of entrepreneurial universities has been widely acknowledged on a global scale (Saeed *et al.*, 2014, p. 10). Academic support in South Africa gained public attention when the Integrated Youth Development Strategy (2011–2021) was implemented by the governmental agency NYDA. The corresponding strategy aims to promote self-employment by strengthening the individual agency of youth (Department of Small Business Development, 2014, p. 14).

The manifold policy interventions in South Africa have been pivotal, as they have consistently contributed to overcoming socio-economic inequalities within academia (Department of Small Business Development, 2014, p. 23). These policies facilitate the daily affairs of universities by initiating interactions between faculties,

external stakeholders and students (Syed & Spicer, 2025, pp. 10-18). Nowadays, academic institutions are interwoven into an entrepreneurial ecosystem that comprises other independent agencies, such as government and industry partners. Such a formation has gained popularity as the “Triple Helix Model” over the last decade (Syed & Spicer, 2025, pp. 20-21).

The academic institution thus becomes an essential component of students’ decision-making in the realm of academic entrepreneurship. Similarly, Mothibi *et al.* (2025, p. 15) stressed the necessity to incorporate all actors within the field of entrepreneurship education by pointing out the need to teach sustainable entrepreneurial practices. By defining a viable way for academic institutions to evolve holistically, Hallam *et al.* (2017, pp. 83-85) advocated bridging the gap between research and technology transfer, which commits the university to engage in “third missions” by accompanying commercial ideas and providing resources to students.

In the context of South Africa, the literature highlights technical support, mentorship, role models, and accessible funding options as essential to support students’ entrepreneurial academic journey (Mothibi *et al.*, 2025, p. 15). Overall, academic support seems to have a strong focus on entrepreneurial education in South Africa, although a coherent support network has not been realized yet (Westhuizen, 2024, p. 60).

## 2.4 Misperception of social norms

As the research design comprises questions with respect to *PSN*, an understanding of the numerous biases that lead to erroneous deductions is imperative.

Overall, the Social Norms Approach by Berkowitz assumes that the perception of habits, norms, or attitudes is usually impaired by inherent perceptual errors (Berkowitz, 2004, pp. 12-13). To break it down, a specific norm is either misperceived by individuals or social groups, e.g. when the prevalence of *EI* is underestimated or overestimated. Such a scenario could lead to a situation in which others are considered different, although in fact they do not exhibit any deviation. This has been identified as the most frequently occurring misperception and is categorised as “pluralistic ignorance” (Berkowitz, 2004, p. 7). An incident of

extreme magnitude was witnessed in an experimental case involving 1,500 Saudi Arabian males, whereby a false belief about others has had severe consequences for their wives' labour supply decisions (Bursztyn *et al.*, 2018, pp. 17-20). Deductively, wrong assumptions about the *EI* of South Africa's women could potentially undermine gender-equitable entrepreneurial interventions.

In comparison, "false uniqueness" is equated with the belief that others belong to one's reference group, although this assumption turns out to be an illusion. Such misperceptions have been observed in clinical studies, when addicts reassured themselves of behaving in a commonly acceptable way (Berkowitz, 2004, pp. 8-9).

Latest research outcomes added another category of misperception, which usually occurs whenever individuals are integrated into a social system (Dannals & Li, 2024, p. 4). In this regard, an individual is characterised by having predetermined experiences that culminate in a continuous loop of behaviour and the processing of new information (Dannals & Li, 2024, p. 5). Within the context of this study, participants might state that they would consider an investment decision, but cognitive biases could hamper objective judgment, resulting in a frame of misconception (Roux *et al.*, 2006, p. 56).

The paper of Astebro *et al*. (2014, p. 51) added more information on the intersectionality of biases and their negative or positive interpretation. In this regard, they observed a strong perseverance among those entrepreneurs whose efforts did not pay off, sacrificing better options in return. As a remedy to cope with external biases a connection to perceived self-efficacy has to be drawn. In the 1970s, the psychologist Bandura (1977, p. 18) found that self-efficacy beliefs help people to avoid questioning their capabilities, even though external biases are undermining the accurate assessment of one's own personal traits. Both findings underpin the conclusion that the existence of numerous individuals with strong self-efficacy to put entrepreneurial tasks into action could compensate for any misaligned norms regarding entrepreneurship.

Notably, any misperception of a specific norm usually provokes an intervention through normative corrections. Norm interventions are implemented for the sake of behavioural change within the entire community whether they are engaged in

the actual problem that arises out of the misperception or not (Berkowitz, 2004, pp. 16-22). In the design of this study, institutions such as DHET and NYDA and their policies have been marked as influencing factors to shape entrepreneurial education, which provides the opportunity to influence norm perceptions in either direction.

## 2.5 Gender-related stereotypes

Norms do not solely influence entrepreneurs on a generic level, but seem to have a detrimental effect on female entrepreneurs in particular. Gender-inflicting norms have become widespread in recent years, with several barriers being attributed to entrepreneurially active women. For setting up their own ventures, women face significant disadvantages due to insufficiencies in education, training opportunities, and spatial mobility, as well as a lack of support from family and institutions (Raghuvanshi *et al.*, 2017, p. 233).

These findings intersect with the groundwork of Brush *et al.* (2019, p. 399), who classified entrepreneurial ecosystems at the institutional, organisational, and individual levels and found evidence for incrementally reinforced gender-based inequalities. An inherited burden for women on the institutional level mainly exists due to a predominant share of males in powerful positions. In addition, the organisational view portrayed discomforting situations for women in institutions closely connected to entrepreneurial networks, which further reinforced a gender-related separation. Finally, the person-centred view of entrepreneurs substantiated the assumption that women are more frequently confronted with stereotypes (Brush *et al.*, 2019, pp. 397-401), which thwarts gender equality in the long-run. An accumulation of these stereotypes could incrementally contribute to a lower proportion of women involved in entrepreneurial activities and higher discontinuance rates (Bowmaker-Falconer *et al.*, 2022/2023, pp. 29-30). Such a deadlocked situation might lead to the widespread inaccessibility of useful entrepreneurial resources, a lack of mentorship, and a persistent gender gap (Mothibi *et al.*, 2025, p. 2).

An adverse environment of gender discrimination and stereotypes undermines the chances of becoming a female founder. In accordance with this, normative

barriers significantly limit access to entrepreneurial ventures through the coercion of opposing parties. In developing countries in particular, it has been revealed that gender discrimination, work-life imbalance, and patriarchal societies constantly deter women from choosing entrepreneurship as career option. The rooted structural inequality sets the situation of females apart from that of males, a situation which is shared across 90 developing countries in the world (Panda, 2018, pp. 316-325).

As a consequence, normative perceptions of career prospects for women prevent them from pursuing their individual *EI* (Karim *et al.*, 2023, p. 410). Pervasively, gender discriminative norms and traditions undermine an equalised status of women in low-education countries, and in general among women with children or those with a relatively low preference for entrepreneurial risk-taking (Love *et al.*, 2024, pp. 340-341).

The literature points to the fact that gender norms are internalised by many societies to an extent that subsequently influences the decision-making of the disregarded group. Recent solution-oriented approaches emphasize the interplay between individual and collective agencies as a key mechanism for addressing persistent barriers. Developing tailored mentorship programmes or using successful alumni as role models is considered an efficacious means of reducing systemic disparity (Stoker *et al.*, 2024, p. 1739).

A second strand of research described the meaningful role of informal institutions that are paving the way for women to start off as an entrepreneur. Whether these informal entities (e.g. codes of conduct, social norms, religion, family, or ideology) are capable of forming alliances against formal institutions remains to be investigated (Giménez & Calabrò, 2018, pp. 870-875). Official supranational institutions like the World Bank, UN or OECD report meticulously about the economic distinctions between entrepreneurs (Giménez & Calabrò, 2018, p. 872), while informal gender-related viewpoints remain unexplored.

## 2.6 Hypotheses

Before the hypotheses could be determined, a holistic understanding of the major antecedents of *EI* was essential. By defining each antecedent (cf. section 2.3),

the scope and definition of the variables to be measured were established. Before the intended research instruments can be developed, a logical structure concerning the interdependencies of the variables under observation must be developed to align the conceptual framework with quantifiable hypotheses.

**H1: *PEC* has a positive effect on *EI*.**

Among a sample of university students, there was no evidence of a correlation between emotional skills and *EI* (Fernández-Pérez *et al.*, 2019, p. 16) hence, it remains to be seen whether cognitive skills can evoke *EI*. In the context of South Africa, there was strong evidence that entrepreneurial capabilities are crucial to stimulate interest in youth entrepreneurship (Elizabeth *et al.*, 2020, p. 99). In the Gauteng province of South Africa, a positive perception of one's own capabilities was considered as an encouraging factor to spark *EI* (Mothibi *et al.*, 2025, p. 14).

Nowadays, *PEC* is strongly related to portrayals of entrepreneurs appearing in media, that are reinforcing the stigma of successful entrepreneurial traits (Mothibi *et al.*, 2025, p. 14). These results raise the question of whether an entrepreneurial journey is built upon one's own genuine decision or whether the media, as the fourth estate, insinuates a particular image to follow. Onyemaechi (2024, p. 975) associates with an entrepreneurial character a calculated risk-taking propensity and the skill to drive innovations despite exploitative market conditions. Based on the arguments above, it is hypothesised that there is a positive relationship between *PEC* and *EI* (H1).

**H2: *PAS* is positively related to *EI*.**

Toh *et al.* (2025, p. 45) revealed through a thematic analysis that accelerators with a blend of skill-oriented and skill-enhancing activities have the potential to foster *EI*. From the author's perspective, this provides an interesting twist amid the interconnection of well-performing individuals with co-creative institutions in the academic context. In the context of Higher Education Institutions (HEI) in South Africa, Zayd & Henry (2017, p. 96) posited a shift in academic policies by the use of film sequences and probing questions to augment the students' knowledge in social entrepreneurship. Hence, the available research lends support to the hypothesis that there is a positive relationship between *PAS* and *EI* (H2).

**H3**: ***PSN* have a positive effect on *EI*.**

It is a widely held view that perceived norms are key determinants of consistent patterns of action (Bell & Cox, 2015, p. 28). In collectivist societies like South Africa, family expectations, peer influence and community standards tend to have a major influence on young people (Onyemaechi, 2024, p. 976). This argument appears to be less significant for individuals who are rooted in traditional entrepreneurial environments (Abbas *et al.*, 2020, p. 2).

This view may not be true for every individual, as perceived norms are widely considered as reliable predictors for a certain behaviour, which could eventually lead to an alignment between the persisting norm and the subsequent behaviour (Anthenien *et al.*, 2018, p. 307). Nevertheless, to merge both viewpoints it seems advisable to take into consideration which underlying psychological levers could effectuate a shift of perceived norms to prevent norms from drifting apart from the majority opinion (Dannals & Li, 2024, p. 1).

Otherwise, a negative consequence for not adhering to relevant norms is conceivable, as reference groups usually sanction non-conformity. This is evident upon a closer look at the meta-norm *Ubuntu*, which enjoys wide acceptance among South Africans (Bukuluki, 2024, p. 121).

In conclusion, these arguments lead to the hypothesis that *PSN* has a positive effect on *EI* (H3).

# 3 Methodology

The following study employed a mixed-methodological approach, which has been defined as follows (Johnson *et al.*, 2007, p. 123):

“Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches […] for the broad purposes of breadth and depth of understanding and corroboration.”

The author identified a mixed-methods design as appropriate because neither quantitative nor qualitative data alone appeared sufficient when considering aggregated individual perspectives. Such fine-grained and distinct judgements regarding *PEC*, *PSN,* and *PAS* had to be grounded in comprehensive empirical research. The designs within the mixed-method approach vary, and they are therefore categorised as triangulation design (concurrent data collection), explanatory or exploratory design (two phases of data collection) and embedded design (merging findings of qualitative and quantitative results and draw conclusions) (Creswell, 2009, p. 103).

For the purpose of this study, the explanatory sequential design was selected, which usually starts with a quantitative phase followed by qualitative data gathering. The reason for starting with quantitative measurement is substantiated by the larger sample size, which exceeds the willingness to participate in focus group discussions by a significant margin. Furthermore, a solid dataset was developed in order to provide evidence for the formulated hypotheses. The author interprets both research instruments as equally credible, which had been essential to avoid any leading bias. Due to these combined characteristics, the design was ultimately classified as a “partially mixed sequential equal status design” (Leech & Onwuegbuzie, 2009, p. 269).

The triangulation of both research findings sets did take place in the end, because the time span between the expiration of the survey and the subsequent focus group amounted to only a few days (cf. Figure 4). To investigate the prevailing patterns of the survey, the research instruments were applied consecutively without any intersection.

A primary challenge of the mixed-methods approach was to administer two representative samples that accurately reflect the reality of the given population (Collins *et al.*, 2007, p. 268). The second challenge involved the need to synthesise the findings, while accounting for the disparate sample sizes of each instrument (Collins *et al.*, 2007, p. 269). To prevent any detrimental effects during data collection, the sampling scheme was planned meticulously prior to the initial phase of data gathering.

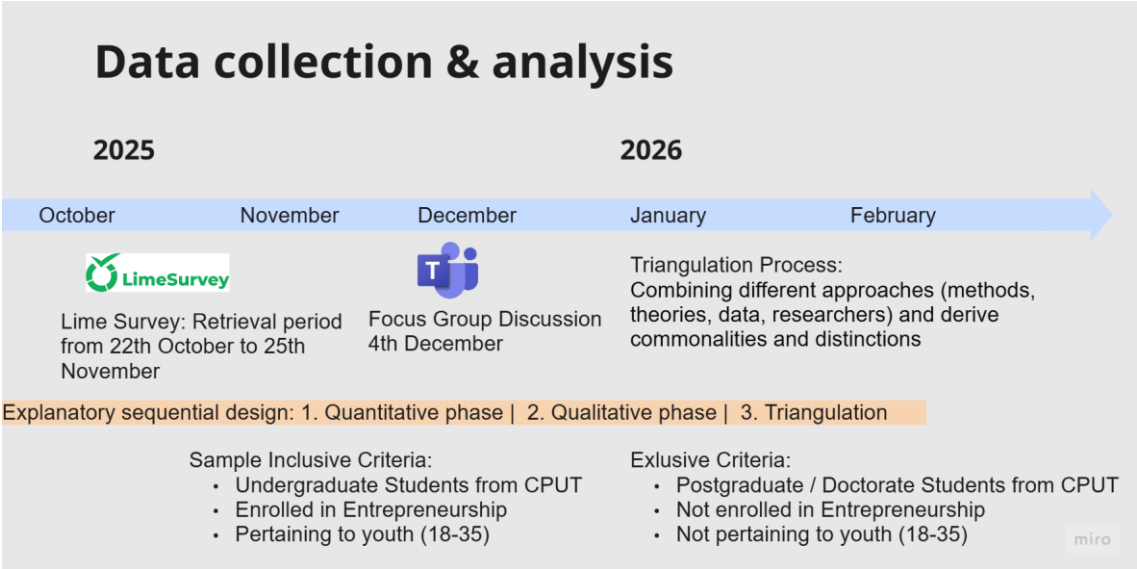


Figure 4: Timeline for data collection and analysis

## 3.1 Sample

Due to the anonymous nature of the target group, the author utilised a non-probability self-selection sampling approach (Vehovar *et al.*, 2016, p. 328). This approach facilitates the distribution of the survey and provides the addressed target group with the opportunity to opt out. Therefore, this sampling method is widely described as convenience sampling, since the selection of research subjects is dependent on their availability and willingness to participate for various reasons (Stratton, 2023, p. 147). In contrast, the composition of this sample does not fulfill the requirements of heterogeneity, which prevents the extrapolation of findings to the wider population (Stratton, 2023, p. 147).

Accessible web-based surveys are very common in the 21st century (Vehovar *et al.*, 2016, p. 334), enabling a sampling strategy that is more precisely aligned with

the characteristics of the targeted population. To legitimise the sampling strategy, the inclusion criteria were designed to address youth (aged 18–35) enrolled in an undergraduate programme within the department of entrepreneurship at CPUT. Conversely, any characteristics that do not match these prerequisites justify exclusion. The sample included n = 76 students, who are discussed in more detail in the section 4.1.

## 3.2 Survey Design

The survey was developed following the formulation of hypotheses to establish appropriate questions that measure the intended constructs. For the survey itself, the focus was set on defining unbiased questions that are informative and capture the inherent meaning of the variables. The web-based survey was employed as a quantitative measurement tool. It can be used as a litmus test to get a rough overview of the entrepreneurial mindsets of every student. Pre-drafts of the survey were distributed to Master's students with research experience from external universities to eliminate erroneous wordings and enhance the overall validity of the questions. The "LimeSurvey" tool was provided by the University of Neu-Ulm, which allows data collection for research and study purposes. Settings of "LimeSurvey" allow confidentiality and anonymity for each group of participants, which was a mandatory part of the research contract with CPUT.

Many questions were adapted from research papers with a dedicated entrepreneurial focus on South Africa to ensure adequacy and consistency throughout the data collection. Item scales were operationalised based on existing literature, with slight modifications made to align the research environment with the overall purpose of this study.

The control variables were derived from Love *et al.* (2024, p. 336), but restricted to gender, age, employment status and ethnic background. Ethnic background was taken into account, as it is common institutional practice to capture such data for official census purposes. For the variable *EI,* a five-item scale was applied, whereby the questions were adapted from the literature (Caputo *et al.*, 2024; Karim *et al.*, 2023; Omar & Nazri, 2016). *PEC* used a five-item scale and adapted the questions from existing sources as well (Caputo *et al.*, 2024; Love *et al.*,

2024). The items for *PSN* relied on the groundwork of the following contributors (Heuer & Kolvereid, 2014; Liñán *et al.*, 2011). Lastly, the items for *PAS* were adjusted from a combination of the following researchers (Bowmaker-Falconer *et al.*, 2022/2023; Caputo *et al.*, 2024; Omar & Nazri, 2016).

The introductory questions related to the demographic data of the participants, followed by 28 items separated into four equal sections with reference to each variable. The questions were designed with a 5-item Likert scale, as the author aimed to facilitate the participants' decision-making while providing a neutral mid-point option (Johns, 2010, p. 6). When designing the questions, particular focus was placed on avoiding double-barrelled questions, absolute statements (always, never, seldom), and leading questions (Johns, 2010, pp. 3-5).

For the design, it was equally important to choose questions that do not intersect with each other. Secondly, the questions have to semantically intersect with the overarching variable. These prerequisites were essential due to the importance of internal consistency, which was measured by using Cronbach's alpha (Cortina, 1993, p. 100).

Prior to the questions, a statement from the author informed participants about their right to withdrawal, the anonymised and pseudonymised structure of the survey and the inclusive and exclusive criteria, which determined the eligibility of every variable.

After finalising the formal aspects, the Faculty of Business and Management Sciences distributed the web-based survey to 626 students from the 1st to the 3rd year (Diploma and Advanced Diploma), aligning with the criteria formulated in the preliminary phase (cf. Figure 4).

## 3.3 Focus Group Design

The invitation to the focus group has been forwarded to the same target group of 1st to 3rd year students, who are enrolled in the entrepreneurship department. In accordance with the ethical requirements issued by the Faculty of Business and Management Sciences at CPUT, general consent and audio/video recording consent forms were drafted prior to the focus group to ensure ethical compliance.

The focus group consisted of participants from the same cohort who had already taken part in the web-based online survey. To ensure consistency regarding the questions, the discussion guide was calibrated against the determinants of the survey. As participation would require a significant time commitment, the participants were offered an incentive in the form of a voucher. Five participants agreed to take part in the two-hour focus group discussion after receiving the invitation. Finally, the discussion took place virtually on December 4$^{th}$ from 17:00 to 19:00 CET via the Teams platform.

The focus group was divided into four blocks, which follow the same standardized procedure of four consecutive thematic blocks (*PEC, PSN, PAS and EI).* After an opening session, the participants consented to participate in this research study by acknowledging audio and video recording. At the beginning of the discussion, the facilitator legitimised the study by emphasising the confidentiality of personal data and the right to withdraw from the focus group at any time. Finally, to guarantee interaction among the participants, they were informed of the discussion's characteristics, which allowed for controversial and contradictory statements.

Each variable was granted a time period of 15 to 20 minutes. The participants of the focus group were male, aged between 18 and 24, and from the Black South African community. The group outlined advanced experience in entrepreneurship due to self-administered projects during the course of their academic journey. The entire discussion was automatically recorded and transcribed using Microsoft Teams, after which the final transcript was imported into ATLAS.ti software for qualitative data analysis. The transcript was then used for thematic coding, which was scientifically grounded in the work of Anselm Strauss (1987). The coding can be seen as an integral part of the data analysis to utilize the triangulation of both empirical research instruments.

The application of thematic coding is an inductive approach that complements the statistical analysis with qualitative theory-building. The codes slightly evolved over time from a fine-grained *in-vivo*-coding to a more generic coding. The author highlighted a total of 69 quotations, which were subdivided into 16 codes and finally allotted to the overarching code groups, named after each variable (*PEC, EI, PSN, PAS*).

### 3.3.1 Grounded Theory

The author opted for Grounded Theory to analyse the collected data and to generate a theory (Strauss, 1987). In the author's view, the Grounded Theory is an appropriate concept for the present data material, where the search for knowledge is characterised by understanding, interpretation, and interpretive structures. The formation of categories and memos is highly dependent on the researcher's background, as they guide the research process and influence the outcome through their actions. Breuer *et al.* (2019, p. 212) have described this scientifically complex methodology as a "licence to think autonomously". This entails, on the one hand, the interpretative approach of coding. On the other hand, Breuer *et* al. (2019, p. 5) associated this label with the ability to recognise patterns, which is naturally limited by perception.

In addition, this theory emphasises the constant iteration involved in finding appropriate codes. Strauss himself described this approach as inductive category formation based on the material. This comprises three consecutive phases, namely open, axial, and selective coding (Strauss, 1987, pp. 55-81).

### 3.3.2 Systematic coding

Open coding describes the procedure of assigning codes without preconceived notions, regardless of the initial background or context of the text (Strauss, 1987, pp. 55-81). This form of coding was applied immediately after transcription to assess the quality of the statements and the thematic focus of the discussion. Axial coding was then applied to establish relationships between the individual codes (Strauss, 1987, pp. 55-81). For this purpose, a diverse range of main categories and subcategories was created within the ATLAS.ti code system. It was likewise possible to attach one's own thoughts to text passages in the form of comments and memos. The third phase is referred to as selective coding, during which the relationships between the individual codes were refined and readjusted in light of the additional insights gained (Strauss, 1987, pp. 55-81). The objective was to elevate all terms to a higher level of abstraction. In the beginning of the coding phase, single categories were colour-coded, as illustrated in the accompanying table (cf. Table 1).

Categories serve as structuring elements for text sequences, facilitating a hermeneutic approach. Since it was not possible to categorise the data in advance due to the inductive nature of the study, the categories emerged during the analysis.

Table 1: Thematical codes (Atlas.ti, Extract)

| Sub-Code | Main Code |
|---|---|
| **Iteration of the business idea** | *PEC* |
| **Risk Management** | *PEC* |
| **Entrepreneurial skillset** | *PEC* |
| **Finding an expert** | *PEC* |
| **Surrounding conditions** | *EI* |
| **Main obstacles** | *EI* |
| **Entrepreneurial past** | *EI* |
| **Driver** | *EI* |
| **Community Benefit** | *PSN* |
| **Role Model** | *PSN* |
| **Like-minded people** | *PSN* |
| **Outreach and network** | *PSN* |
| **Supportive academia** | *PAS* |
| **Missing academic opportunities** | *PAS* |
| **Real life projects** | *PAS* |
| **Entrepreneurial Resources** | *PAS* |

In an iterative process, codes were assigned to corresponding words, statements, or paragraphs, either concurrently or immediately following the review. Due to the unstructured nature of the database, it was necessary to initially use thematic codes and then abstract the terms employed to their essentials in a second coding process, which is illustrated by Strauss's coding paradigm (cf. Appendix D). Although it is common practice in research to code only selected sentences and sections, the author opted to evaluate the entirety of the available material. The main reasons for this were the limited number of objects under investigation and the need to integrate both empirical studies.

Developing four code groups proved appropriate, as there were four variables to be tested in total. At the beginning of the coding process, comments and memos were utilised to examine the text for features beyond the semantic level and to establish connections between statements from different participants. Comments were made on each of the 69 quotations to subsequently gain an understanding of the meaning of individual statements.

Strübing *et al.* (2021, p. 96) pointed out that quality criteria ensure the adequate application of broadly defined rules; however, they also emphasise that these criteria do not guarantee high-quality results. To ensure scientific rigour, fixed rules and procedures within a defined research process are necessary. This also involves carrying out appropriate quality assurance to meet the requirements of qualitative social research (Strübing, 2021, p. 96). To guarantee overall scientific integrity, the author decided to apply the seven qualitative criteria proposed by Strauss and his co-author Corbin (Strauss & Corbin, 1996, p. 217).

### 3.3.3 Quality criteria

**Criterion 1:** How was the initial sample chosen? What were the reasons for this?

Author: The sample was based on self-selection and non-probability sampling. The inclusion criteria were defined according to the research questions and the corresponding hypotheses. It was decided to exclusively target students from the entrepreneurship department, as they are presumably motivated to provide insights into their future aspirations regarding entrepreneurship.

**Criterion 2:** What main categories were developed?

A: The code groups were aligned with the variables *PEC*, *PSN*, *EI*, and *PAS*. These were further subdivided into 16 codes, which summarise the highlighted text sections at an abstract level. To identify the appropriate codes, it was necessary to iterate hermeneutically to grasp the essence of each sentence or paragraph. As codes can have multidimensional relationships with these variables, the application of multiple codes per text passage was allowed.

**Criterion 3:** Which events, incidents or actions referred to these main categories?

A: The author structured the focus group discussion guide according to the survey questions (cf. Appendix C) and allocated equal time to each subtopic. This underscores the equal-status design of the mixed-methods approach utilised.

**Criterion 4:** Which categories were used to inform the theoretical sampling process? In other words, how did the theoretical formulations guide the selection of

the data? To what extent were the categories useful for the study after theoretical sampling?

A: Theoretical sampling was not incorporated into this research process due to the restricted time horizon. Instead, data triangulation was employed as the primary means of drawing conclusions. Furthermore, specified sampling to deepen theoretical knowledge is recognised as a potential next step for future research.

**Criterion 5:** Which hypotheses were formulated regarding conceptual relationships (between categories), and how were they tested?

A: The hypotheses were formulated *a priori*, derived from the research questions, and grounded in the preceding problem analysis.

**Criterion 6:** Were there any hypotheses that were not tenable in relation to what was actually perceived? How were these discrepancies taken into account? How did they influence the hypotheses?

A: This study identified trends that require further validation through larger-scale research. Identifying discrepancies and divergent individual opinions was an integral part of the analysis. The hypotheses were validated based on empirical evidence after completing the data integration.

**Criterion 7:** How and why was the core category selected? Was the selection sudden or gradual, difficult or easy? What basis was used for these final analytical decisions?

A: The core categories emerged during the final stages of the analysis through iterative comparison. These categories were rooted in the variables and developed gradually. The sub-codes consisted of the most frequent keywords, which concisely reflect the inherent meaning of the participants' statements.

# 4 Results

## 4.1 Survey Results

A total of 103 entries were recorded via LimeSurvey, of which 27 responses were considered incomplete. This equates to a final sample size of 76 students who fully completed the online survey during the data collection period between 22 October and 25 November 2025. As can be discerned from the box plot (cf. Figure 5), the sample demonstrates a high degree of homogeneity with respect to the control variables.

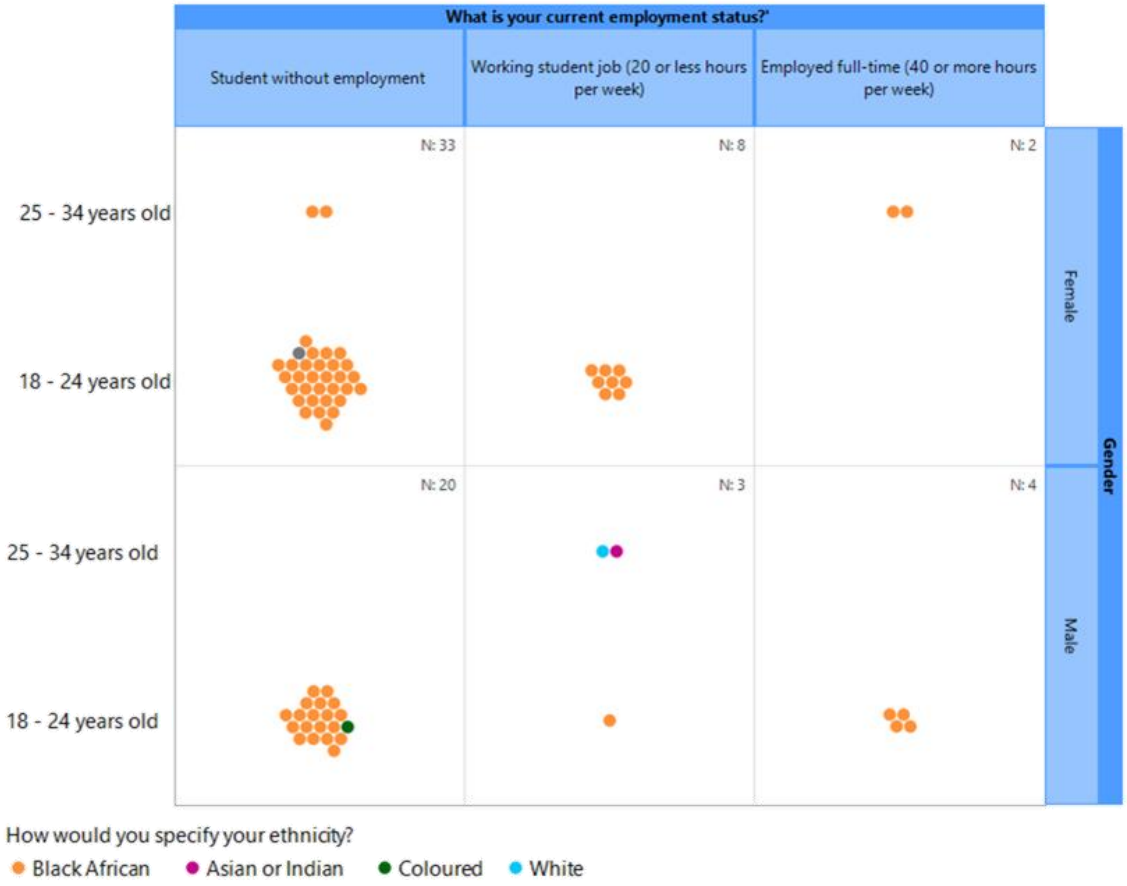


Figure 5: Demographic data of the participants in the online-survey (JMP-Extract)

Accordingly, the survey participants are predominantly aged 18 to 24, students without employment, and identify as Black South African. However, the skewed distribution of the sample in terms of control variables (age, gender, employment, and ethnicity) limits the generalisability of the findings to the entire population

(Jager et al., 2017, p. 8). The demographic profile of the broader CPUT student body (cf. Figure 6) is insufficient to draw definitive conclusions regarding the representativeness of this sample (CPUT, 2024, p. 29).

| Access | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Key Performance Indicator** | **Target 2022** | **Actual 2022** | **Target 2023** | **Actual 2023** | **Target 2024** | ****Provisional actual 2024 (Unaudited)** | **Notes** |
| **A. Access** | | | | | | | |
| **Headcount Totals** | **37,090** | 33,762 | **34,968** | 35,482 | **36,604** | 36,075 | A1 |
| First-Time Entering Undergraduates | **7,695** | 8,522 | **8,721** | 8,904 | **8,969** | 8,640 | A2 |
| First-Time Entering Occasional | **10** | 12 | **2** | 7 | **2** | 13 | |
| Foundation First-Time Entering UGs | **833** | 1,558 | **1,780** | 1,622 | **1,872** | 1,506 | A3 |
| Headcount Enrolments Total UG | **32,918** | 31,357 | **31,433** | 32,714 | **32,702** | 33,119 | A4 |
| Headcount Enrolments Total PG | **4,087** | 2,279 | **3,501** | 2,643 | **3,867** | 2,855 | |
| Headcount Enrolments Total OC | **85** | 126 | **34** | 125 | **35** | 101 | |
| **Enrolments by Major Field of Study** | **37,090** | 33,762 | **34,968** | 35,482 | **36,604** | 36,075 | A5 |
| Science, Engineering, Technology | **16,748** | 15,591 | **16,129** | 16,912 | **17,053** | 17,648 | |
| Business/Management | **12,466** | 9,993 | **11,448** | 10,064 | **12,156** | 10,171 | |
| Education | **5,132** | 5,403 | **4,441** | 5,446 | **4,242** | 5,121 | |
| Other Humanities | **2,744** | 2,774 | **2,950** | 3,059 | **3,154** | 3,135 | |
| Distance Education Enrolments | **404** | 402 | **348** | 281 | **367** | 265 | |
| **Demographic Profile** | | | | | | | A6 |
| % Female Students | **54,4%** | 58,0% | **56,0%** | 58,7% | **55,8%** | 59,0% | |
| % African Students | **64,6%** | 74,5% | **73,5%** | 77,7% | **74,1%** | 79,9% | |
| % Coloured Students | **26,2%** | 20,6% | **21,0%** | 18,1% | **20,6%** | 16,6% | |
| % Indian Students | **0,9%** | 0,6% | **0,6%** | 0,5% | **0,6%** | 0,5% | |
| % White Students | **8,3%** | 4,2% | **4,8%** | 3,5% | **4,7%** | 2,9% | |
| % Other | | 0,2% | | 0,2% | | 0,2% | |

Figure 6: Report about the demographic profile of CPUT (CPUT, 2024, p. 29)

For this reason, the analysis was limited to univariate and bivariate statistics, which were evaluated independently of the control variables. Prior to the inferential statistical analysis, the raw data from LimeSurvey was transferred to the JMP statistical software. The ordinal data from the survey (e.g. Strongly Agree, Agree...,Disagree) was then converted into numerical datasets. Since all 28 items utilised a five-point Likert scale, it was possible to evaluate the statistical dependencies between variables without incurring scaling errors.

### 4.1.1 Normal distribution

Before the items could be evaluated using statistical parameters, compliance with the Gaussian normal distribution was examined using Q-Q plots (cf. Figures 7 – 10). The actual values of individual quantiles were compared with the theoretical normal distribution in the diagrams. Ideally, this would result in a straight line

along the 45-degree diagonal. According to the Shapiro–Wilk, only the *PAS* variable followed a normal distribution; the other variables were only approximately normally distributed at a 5% significance level. Nevertheless, multivariate tests such as linear regression are not strictly bound to a perfect normal distribution, especially with sufficiently large samples (Schmidt & Finan, 2018, p. 147).

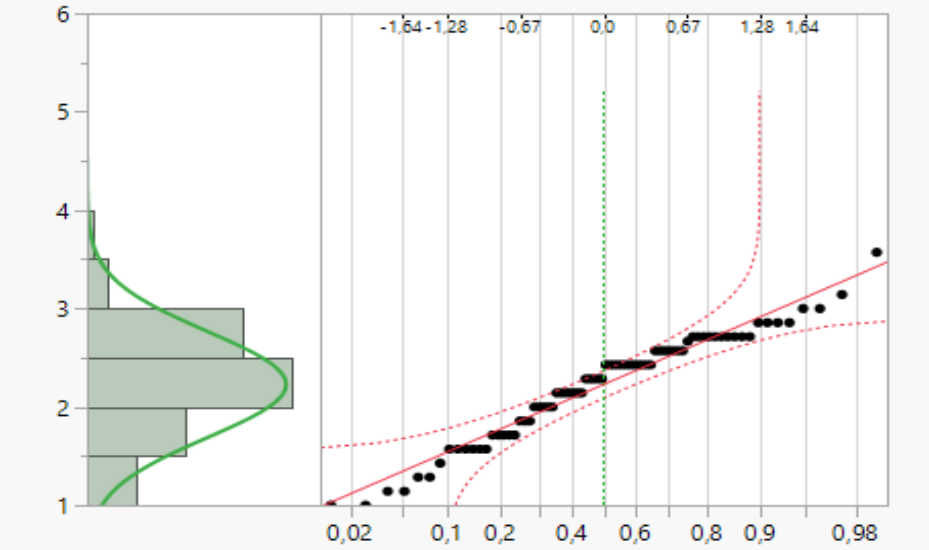


Figure 7: Q-Q plot for *PEC* (JMP-Extract)

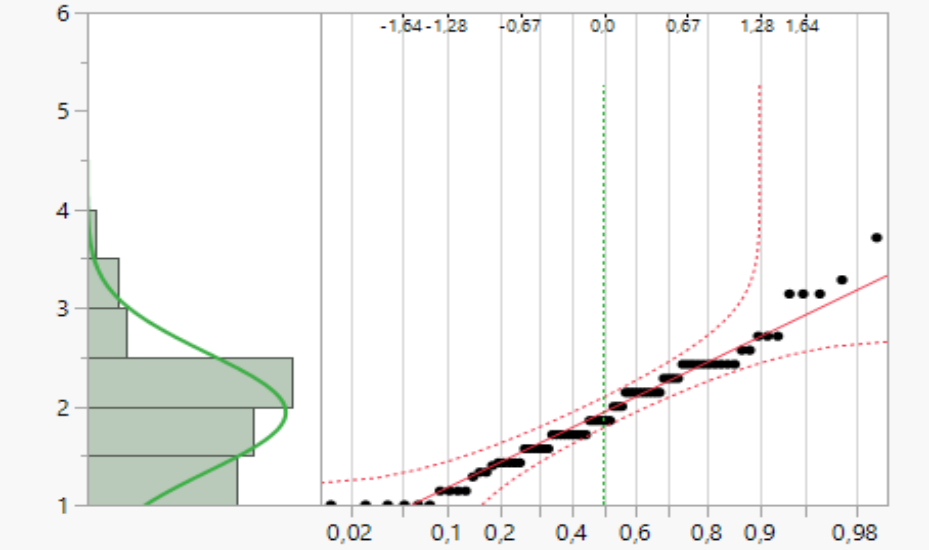


Figure 8: Q-Q plot for *EI* (JMP-Extract)

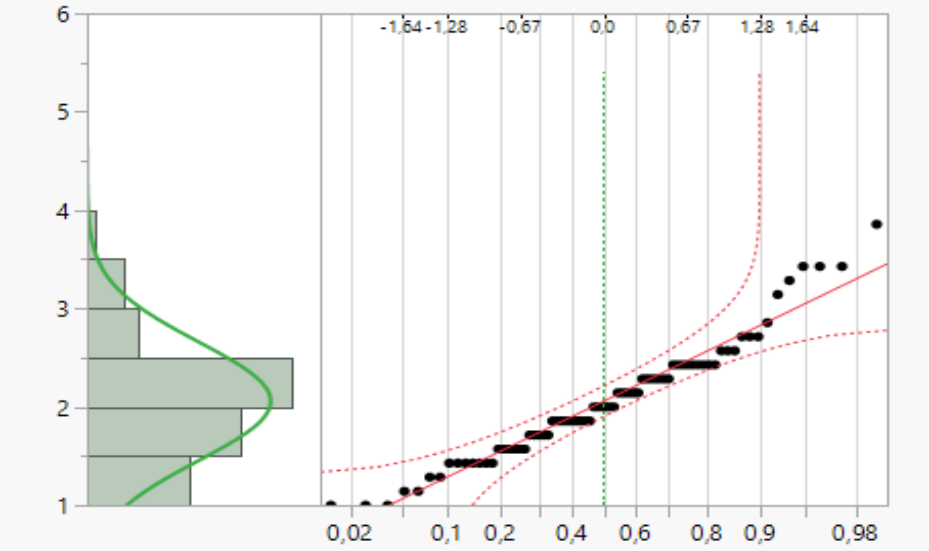


Figure 9: Q-Q plot for *PSN* (JMP-Extract)

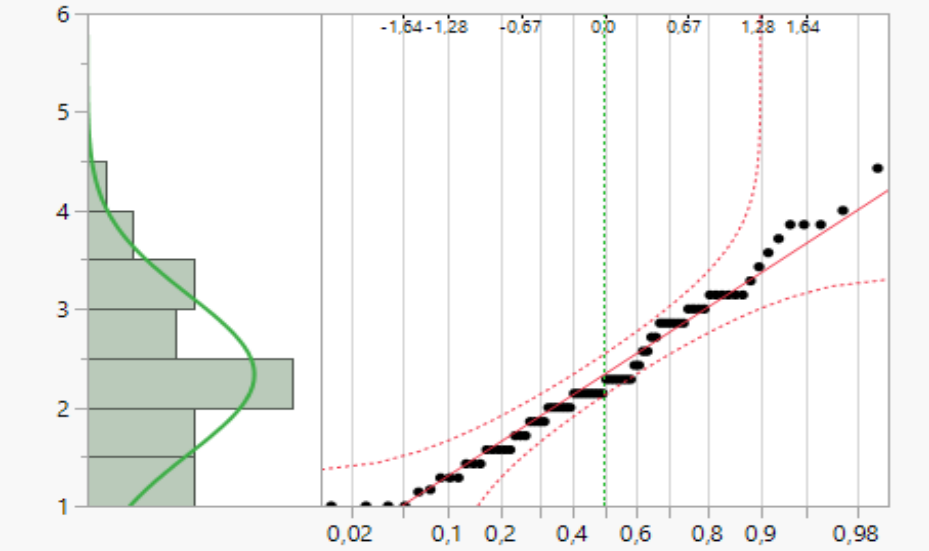


Figure 10: Q-Q plot for *PAS* (JMP-Extract)

With a Shapiro-Wilk statistic of 0.9717 for the *PAS* variable, the data closely aligns with the theoretical normal distribution. As the corresponding *p*-value is greater than the specified significance level of 5%, the null hypothesis $H_0$, stating that the data is normally distributed, cannot be rejected. For all other variables, the alternative hypothesis ($H_1$), indicating a skewed distribution, was accepted since the *p*-value were less than 0.05. Despite the rejection of the null hypothesis for these variables, the Q-Q plots demonstrate that the quantiles closely follow the straight line, although larger outliers are visible at the lower and upper tails (cf. Figure 7 –10). Since the visual differences between the variables in the Q-Q

plots are subtle, the Shapiro–Wilk test is essential for determining the normal distribution of *PAS*. After converting the ordinal data into a numerical system, the author calculated the relevant descriptive statistics.

### 4.1.2 Descriptive statistics

The scale index for each item is consistent, where a numerical value of 1 represents “strongly agree” (highest agreement) and 5 represents “strongly disagree” (highest disagreement). Upon closer inspection of the data, it became evident that the aggregated items pertaining to *EI* (1.94) and *PSN* (2.06) received stronger levels of agreement than those concerning *PEC* and *PAS* (cf. Table 2).

Regarding the standard deviation, a value of $\sigma < 1$ is interpreted as expected behaviour in the sense of “normally distributed” random variables, while a standard deviation of $\sigma > 1$ indicates greater fluctuations in responses. It is evident that a more pronounced consensus ($0.83 \leq \sigma \leq 1.10$) exists within the sample regarding *PEC* specifically. Although *EI* and *PSN* show higher mean agreement than *PEC*, their standard deviations exhibit greater variability, indicating more diverse responses (cf. Table 2). The relatively low level of agreement regarding *PAS* is also striking, with the SD ($1.11 \leq \sigma \leq 1.23$) suggesting a wide range of opinions among participants.

Table 2: Descriptive statistics (JMP-Extract)

| Item | Mean | Variance | Standard Deviation (SD = σ) | 95% confidence interval of the mean - Lower bound | 95% confidence interval of the mean - Upper bound | Sample Size |
|---|---|---|---|---|---|---|
| **1** | 2,18 | 0,69 | 0,83 | 2,00 | 2,37 | 76 |
| **2** | 1,99 | 0,73 | 0,86 | 1,79 | 2,18 | 76 |
| **3** | 2,54 | 0,92 | 0,96 | 2,32 | 2,76 | 76 |
| **4** | 2,26 | 1,21 | 1,10 | 2,01 | 2,51 | 76 |
| **5** | 2,01 | 0,76 | 0,87 | 1,81 | 2,21 | 76 |
| **6** | 2,48 | 1,20 | 1,09 | 2,23 | 2,73 | 75 |
| **7** | 2,13 | 0,84 | 0,91 | 1,92 | 2,34 | 76 |
| ***PEC*** | **2,23** | **0,91** | **0,95** | **2,01** | **2,44** | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **8** | 1,77 | 1,02 | 1,01 | 1,54 | 2,01 | 75 |
| **9** | 1,64 | 1,10 | 1,05 | 1,40 | 1,88 | 75 |
| **10** | 1,51 | 0,60 | 0,77 | 1,34 | 1,69 | 76 |
| **11** | 2,41 | 1,42 | 1,19 | 2,14 | 2,68 | 76 |
| **12** | 2,47 | 1,77 | 1,33 | 2,16 | 2,77 | 75 |
| **13** | 2,34 | 1,56 | 1,25 | 2,06 | 2,63 | 76 |
| **14** | 1,47 | 0,39 | 0,62 | 1,32 | 1,61 | 75 |
| ***EI*** | **1,94** | **1,12** | **1,03** | **1,71** | **2,18** | |
| **15** | 2,24 | 1,17 | 1,08 | 1,99 | 2,48 | 76 |
| **16** | 2,47 | 1,48 | 1,22 | 2,20 | 2,75 | 76 |
| **17** | 2,47 | 1,43 | 1,19 | 2,20 | 2,75 | 76 |
| **18** | 2,32 | 1,29 | 1,13 | 2,06 | 2,57 | 76 |
| **19** | 1,63 | 0,69 | 0,83 | 1,44 | 1,82 | 76 |
| **20** | 1,54 | 0,95 | 0,97 | 1,32 | 1,76 | 76 |
| **21** | 1,74 | 0,81 | 0,90 | 1,53 | 1,94 | 76 |
| ***PSN*** | **2,06** | **1,12** | **1,05** | **1,82** | **2,30** | |
| **22** | 2,33 | 1,32 | 1,15 | 2,07 | 2,59 | 76 |
| **23** | 2,49 | 1,45 | 1,21 | 2,21 | 2,76 | 76 |
| **24** | 2,21 | 1,24 | 1,11 | 1,96 | 2,46 | 76 |
| **25** | 2,11 | 1,35 | 1,16 | 1,84 | 2,37 | 76 |
| **26** | 2,24 | 1,44 | 1,20 | 1,96 | 2,51 | 76 |
| **27** | 2,48 | 1,52 | 1,23 | 2,20 | 2,76 | 75 |
| **28** | 2,52 | 1,47 | 1,21 | 2,24 | 2,80 | 75 |
| ***PAS*** | **2,34** | **1,40** | **1,18** | **2,07** | **2,61** | |
| Legend | | 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 = strongly disagree | | | | |

To illustrate findings of the survey, frequency charts for each item were generated using JMP (cf. Appendix A). Moreover, the survey revealed that participants expressed higher levels of agreement than disagreement across all 28 items. Almost all participants had a very strong intention to start a business (Q8–Q14). Q16 and Q17 suggest that a significant proportion of the sample perceives entrepreneurs as having a negative reputation within South Africa. *PAS* recorded the

highest rejection rates, with low recognition of faculty support and entrepreneurial events taking place at CPUT (Q23, Q27 and Q28).

Critically, the consistency of responses for items Q1, Q3, and Q4 requires further examination. As follows, 44% of respondents initially admitted in Q3 that they would seek outside help to realise their own ideas. However, only one person refused Q1 when asked about their capability to found and operate a start-up. In contrast to that, 10 respondents admitted in Q4 that they were completely unaware of the necessary steps to found their own company. Although this underlying inconsistency seemed minor, it required closer scrutiny over the course of the empirical research.

The next step was to ensure that the online survey met the minimum internal consistency requirements defined by Cronbach's alpha across all variables. For instance, the *PEC* variable exhibits moderate internal consistency, with a Cronbach's $\alpha$ of 0.64. The colour matrix of *p*-values (cf. Appendix B) captures the relationships between items within a unidimensional construct and serves as a supplement to the extended item analysis. The colouring of the matrix highlights that Q3 correlates least strongly with the other items of the *PEC* variable. Consequently, excluding this item increases Cronbach's alpha to 0.67, which is considered acceptable in the literature (Taber, 2018, p. 1279).

In the case of *EI*, Q11 was inconsistent with the overall composition. Consequently, this item was omitted from the subsequent correlation analysis. For the *PSN* variable, the exclusion of Q19 increased the internal consistency to $\alpha = 0.70$. Finally, *PAS* did not require any adjustments, as the homogeneity of the construct resulted in an excellent Cronbach's $\alpha = 0.81$.

### 4.1.3 Bivariate statistics

**H1**: ***PEC* has a positive effect on *EI*.**

Correlation and regression analyses were performed to investigate the relationships between the variables under consideration. The pre-defined *p*-value is utilised to determine whether the relationship between the predictor (X) and the outcome variable (Y) is statistically significant or merely due to chance. The correlation coefficient (*r*) between *PEC* and *EI* amounts to 0.57, indicating a

moderate to strong positive relationship, with a significant *p*-value of <.0001. This is significantly below the specified threshold value of $p = 0.05$; therefore, the null hypothesis ($H_0$), which states that the relationship is due to chance, is rejected, and the alternative hypothesis ($H_1$) is accepted. The coefficient of determination was $r^2 = 0.32$. This figure means that *PEC* accounts for around 32% of the variance in the dependent variable. The RMSE measures the difference between predicted and actual values, which equates to 0.50 in this case. A value close to zero is desired to improve the quality of a model.

**H2**: ***PSN* has a positive effect on *EI*.**

The correlation between *PSN* and *EI* was weaker ($r = 0.33$), yet remained statistically significant ($p = 0.0041$). The coefficient of determination ($r^2$) was 0.11, indicating that the independent variable explained only 11% of the variance. The adjusted $r^2$ was even lower at 0.09, suggesting that the model's explanatory power is limited. Consequently, an RMSE of 0.57 represents the highest prediction error among the models examined.

**H3: *PAS* is positively related to *EI*.**

The relationship between *PAS* and *EI* exhibited a moderate to strong positive correlation ($r = 0.55$), which was highly significant ($p = 0.0041$). The coefficient of determination was $r^2 = 0.30$, with an almost identical adjusted $r^2$ of 0.29. This indicates that *PAS* accounted for approximately 30% of the variance in the dependent variable. The RMSE was 0.50, corresponding to the quality of the H1 correlation. .

After reviewing the statistical figures, a significant correlation was confirmed for H1, H2 and H3. While H1 and H3 exhibit a strong relationship between predictor and outcome variables, the results for H2 require further discussion regarding the magnitude of the effect. To conclude the analysis, a bivariate regression analysis was performed to test hypotheses H1, H2, and H3. The aim was to determine the strength, significance and direction of *PEC*, *PSN* and *PAS* on *EI*. The results of the statistical analysis are summarized in Table 3 and Figures 11 to 13. Each predictive variable implies a positive effect on *EI*, which has been illustrated through a positive gradient of the regression line. This means that higher values

in predictor variables (*PEC*, *PSN* and *PAS*) are correlated with higher values in the dependent variable *EI*. Based on the statistical evidence, H1, H2 and H3 are supported by their significant *p*-values and positive regression slopes.

Table 3: Bivariate statistics for the hypothesis

| **Statistical figures** | **Hypothesis 1: *PEC* implies *EI*** | **Hypothesis 2: *PSN* implies *EI*** | **Hypothesis 3: *PAS* implies *EI*** |
|---|---|---|---|
| Correlation (r) | 0,57 | 0,33 | 0,55 |
| Covariance | 0,18 | 0,12 | 0,27 |
| $r^2$ | 0,32 | 0,11 | 0,30 |
| $r^2$ corrected | 0,31 | 0,09 | 0,29 |
| Root Mean Square Error (RMSE) | 0,50 | 0,57 | 0,50 |
| *p*-Value | <,0001 | 0,0041* | 0,0041* |

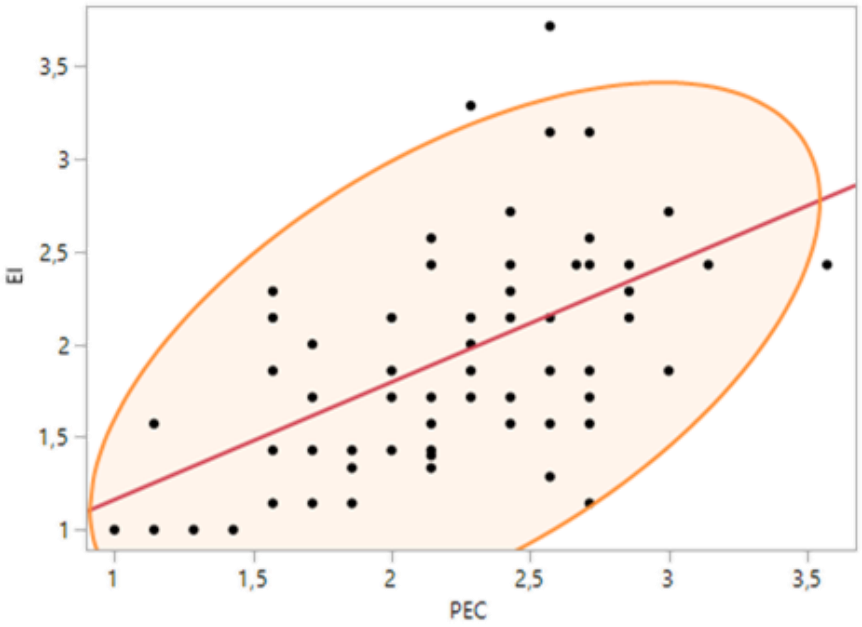


Figure 11: Bivariate regression, H1: *PEC* implies *EI* (JMP-Extract)

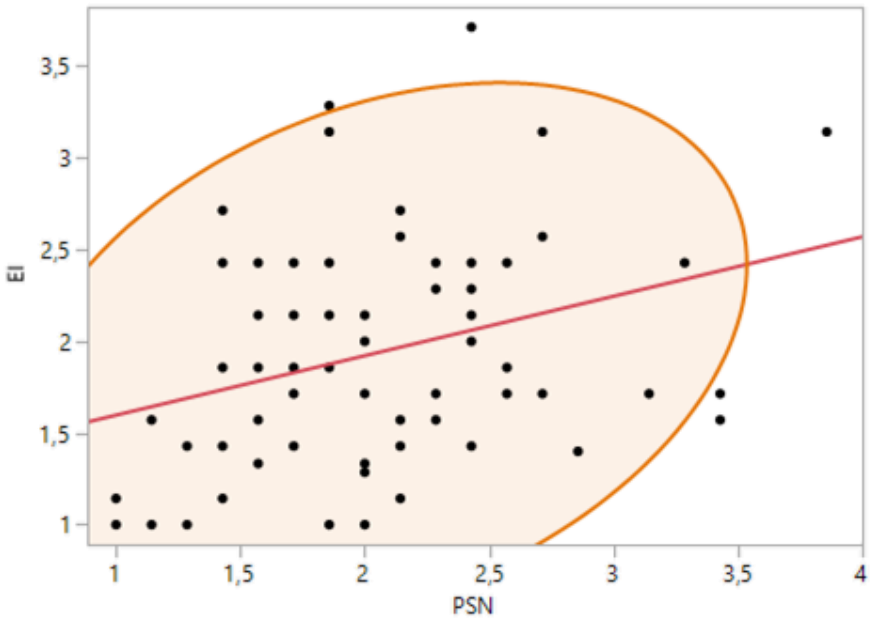


Figure 12: Bivariate regression, H2: *PSN* implies *EI* (JMP-Extract)

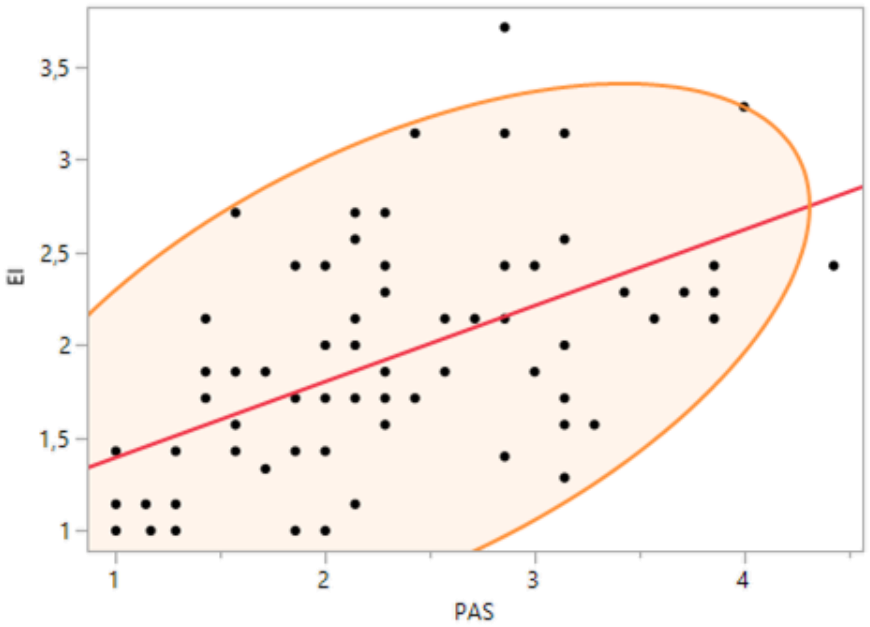


Figure 13: Bivariate regression, H3: *PAS* implies *EI* (JMP-Extract)

## 4.2 Focus group results

The findings from the focus group are presented following the same structure used for the survey analysis.

**H1: *PEC* has a positive effect on *EI*.**

All participants had prior experience with entrepreneurship stemming from their own entrepreneurial endeavours. As drivers for their *EI*, they identified a mix of business-oriented and people-oriented factors. Accordingly, the statements emphasised the simultaneous importance of uplifting the community without compromising the financial success of the business:

*R1*: *"Is this business gonna benefit me or not? Is this business gonna be at the top some days, some years or is this business gonna uplift the community?"*
*R4*: *"So that is the first thing that sparked the interest in starting a business. It was the competitors, it was the market app. It was also just to help uplift the community."*

Overall, the participants emphasised the need for community engagement throughout their entrepreneurial careers, which lends support to the notion of altruistic traits within the focus group. When questioned about the ideal skill set required to become a successful entrepreneur, participants expressed varying opinions (cf. Table 4).

Table 4: Answers of the participants about useful features of an entrepreneur

| Participants | Most important skills mentioned by participants | | |
|---|---|---|---|
| R4 | Visionary | Grounded | Risk-taking propensity |
| R3 | Visionary | People skills | Grounded |
| R2 | Financial Literacy | Problem solving | Advanced Management skills |
| R1 | Financial Literacy | Multitasking | People skills |

These responses provide clarity regarding the perceptions of the required capacities from the participants' perspective. They view strong people skills as a key determinant, which underscores the altruistic motivation to support the community through their businesses. An advanced level of maturity is evident in the fact

that a wide range of basic managements skills were adequately discussed. Furthermore, the participants did not only focus on secondary gains but also on the financial viability to ensure long-term sustainability. Their approaches to acquiring the necessary capacities vary within the sample, which can be attributed to their diverse learning experiences throughout their lives.

*R3*: *"Also going out to ask for help because like I'm just that guy of like when I don't know something, I just go out and ask for help."*
*R3*: *"As I said before, I do not choose where to learn from, but I love to learn so that I can apply more and also to be conscious of when I am taking the decisions and the risk that I am taking. So that is for me, that is my driving force."*
*R2*: *"OK, so how I would approach any setbacks in the first year would be I'll try to be more flexible with the approach and also try to analyze what went wrong within the first year and use that as an advantage to improve the business model."*

These statements provide indirect evidence that participants associate entrepreneurial capacity with adaptive learning and informed decision-making. Therefore, the prioritised skills (cf. Table 4) confirm that participants recognise the significance of *PEC* in fostering *EI* in the long run.

**H2: *PSN* have a positive effect on *EI*.**

There is a strong consensus regarding a certain lack of societal acceptance. All participants emphasised that an entrepreneur must carefully discern with whom they forge connections. Furthermore, all participants highlighted that regional social inequalities often determine the level of support a community is willing to provide.

*R1*: *"You will think your friend will support you, but they do not support you. Your friend is a friend, not someone who will help you with your business. […] It is your family, those ones, they got to support you throughout."*
*R2*: *"That's why sometimes you need to move out of the hood in order for you to make it, because most people in the communities that you live are not really supportive. They live lives as though they are stagnant.*
*R3*: *"So friends and friend, friends and family for the start, then you go outside of your circle. But whereby you know you just started at the foundation of your close people, which is friends and family."*

Contradictions regarding societal acceptance of entrepreneurs are very pronounced, highlighting nuanced differences between support from friends versus family, and the contrast between a hostile community and supportive peer groups. By analysing the inherent meanings, these statements support the assumption that *PSN* is linked to past learned experiences. This appears to determine the level of trust versus mistrust and provides a fine-grained explanation as to why the perspective of participant R2 differs from those of the other participants regarding *PSN*. An in-depth analysis suggests that a hostile environment and ingrained mistrust within local communities may be associated with disparate socio-economic backgrounds. Notably, participant R3 avoided any preconceived judgment, instead offering a benevolent explanation for societal rejection.

*R2*: *"They have evil hearts, basically, 'cause they might seem as though they are in full support of your business, but deep down they really want your downfall."*
*R1*: *"Oh, the community is evil. […] You know, some people they support, just because they want to benefit from him or her."*
*R3*: *"According to the way I see things, they are not evil, but they are not aware of what you are doing. They think: 'Maybe you will not succeed, maybe you will fail along the way. So they do not want to see you fail some point.'"*

On the other hand, the participants viewed interactions with societal role models as a supportive factor. These statements indicate that an entrepreneur requires external interventions to believe in the viability of their venture. Such bonds with individuals do not contradict previous statements regarding the neglectful broader community, as the interactions with role models are described as more intimate and personal, and thus cannot be generalised to the anonymous population.

R4: *"For me, I had a specific role model. It was an individual who was not of course in my immediate community, but they were kind of in my extended community. I have wonderful things to say about this one person."*
*R2*: *"It is that kind of motivation that I get. It is not really coming from a place of I want to open a business because you have a business - it is me attracted to the lifestyle that a person lives."*
*R3*: *"I think my friends with the supporting system were role models to me."*

The participants' statements strongly indicate that past experiences and the resulting social norms are key determinants of the scope and direction of *EI*. The

broad spectrum of diverse *PSN* increases the ambiguity of translating *EI* into practice, as participants seem to be reliant on the reputation of their immediate surroundings.

**H3: *PAS* is positively related to *EI*.**

The students began the discussion with respect to *PAS* by emphasising shortcomings, which limit the accessibility of other valuable resources. Overall, the internal consistency within the group regarding these critiques provides a clear picture and increases the credibility of their judgments. In summary, their articulated expectations set a benchmark for academic interventions aimed at fostering *EI*.

*R4*: *"So I think that that's very important to have actual potential investors and if they like something, they're actually willing to go forth with you as an entrepreneur."*
*R3*: *"I feel like CPUT can provide more than theory on entrepreneurship because like we are just learning too much theory, but we don't just get in practice because we study entrepreneurship as a course, right? We are supposed to be able to be get in practice, getting the incubation, getting the mentorships."*
*R1*: *"I have never heard of any sponsors. Maybe it is my first year. Next year they are gonna tell us more."*

This is accompanied by a call to intensify links with potential partners, investors, and sponsors expected to provide the resources necessary to support students' entrepreneurial initiatives. At the same time, participants acknowledged existing institutional initiatives, indicating that while academic support is perceived to be present, it is not deemed sufficiently accessible.

*R4*: *"Partnership with Astron, that kind of helped us as entrepreneurs [..] just to get some kind of exposure, some kind of understanding and also they kind of just gave us some mentorship."*
*R1*: *"If you are at CPUT, you're a student, you can go to that person and tell him or her your business idea and tell [..] you want to start up this business."*

Participant R3 criticised the inaccessibility of partner networks to which the students could officially reach out. Furthermore, the same student reported a member of the faculty who was entirely unwilling to provide even basic advice to steer the student's endeavour in the right direction.

*R3: "I think it's [Tenza] partnered with CPUT, but those opportunities like most of them are far from us […] I believe we supposed to get closer to those opportunities because we are the one who are the entrepreneurs."*
*R3: "So for me personally, I have reached out to three lectures lecturers, right? And like they wanted to help me, but they did not give me the resources, right? I just went out."*

The highlighted statements demonstrate that a theory-practice gap exists, which is directly associated with inadequate support from faculty management. Despite their status as undergraduates, they acknowledged a strong need to expand their theoretical entrepreneurial knowledge and insisted on opportunities to be connected to entrepreneurial actors.

In summary, the focus group findings provide deeper insights into the relationships between *PEC*, *PSN*, *PAS*, and *EI*. The participants described *EI* as a dynamic and evolving process shaped by individual capacities, social norms, and institutional conditions. While the social environment is described as complex and rigid, individual capacities and academic support are viewed as dynamic, evolving factors of utmost importance.

## 4.3 Mixed-Methods Integration

The qualitative findings corroborate the statistical relationship between *PEC* and *EI*. The focus group provided deeper insights into the underlying mechanisms of individual drivers concerning *EI*. A more nuanced view emerged from the strong support for H1, as the focus group highlighted unanimously the urgency of developing superior competencies. Several approaches to attaining this goal demonstrate that each individual has different motivational factors to foster *PEC*, such as community support, financial viability, or market competitiveness. However, a divergence emerged regarding the willingness to admit knowledge or skill gaps. While the focus group acknowledged the complexity of an entrepreneurial skillset, the survey participants contested their limitations and maintained an overall confident outlook regarding *PEC*.

*R3*: "*I believe in learning from someone. As I said before, I do not choose where to learn from, but I love to learn so that I can apply more and also to be conscious of when I'm taking the decisions and the risk that I'm taking."*

*R4: "He kind of helped inspire me in the sense of starting a business and how to manage it and what are the intrinsic values you need to have with operating your business."*

These statements underscore the reflective attitude of the focus group in comparison to the survey participants, who largely downplayed their need for external help. The focus group even viewed their own network as a complementing source to slightly influence the societal reputation into a positive direction. This was mirrored by the participants' adaptive learning approach, their moderate risk-taking propensity, and their desire to bond with like-minded people. Such an attitude synthesises their goal of acquiring entrepreneurial capacities with the desire for a benevolent societal reputation.

The participants suggested that role models' media presence, their brand marketing engagements, and their overarching personal standing have high potential to strengthen the public credibility of entrepreneurs. Therefore, role models play an intermediary role in positively influencing *PSN* and *PEC* due to their diverse spheres of action.

Reviewing the current state, existing social norms in the Western Cape were viewed as disadvantageous by the majority in both empirical designs. The qualitative findings align with the statistical data, as participants acknowledged the reality of an adverse social standing for entrepreneurs. One participant reflected on the limited support for entrepreneurs by referring to the disparate socio-economic realities within the region.

*R4*: *"That's why sometimes you need to move out of the hood in order for you to make it, because most people in the communities that you live are not really supportive. [...] So yeah, those kind of mindsets kind of clutches because some people want this, some people want this."*

The qualitative findings substantiate the view that there is a high demand for effective academic support. The impression from the survey was amplified by the focus group, when the participants marked interconnectedness with external stakeholders as important component. This lends support to the notion that *PAS* also influences *PEC*, as a significant proportion of the students' time is dedicated to university-based learning activities. Consequently, academic support seems to

have a strong relevance for the students due to the accentuation of knowledge transfer.

A convergence of both empirical findings was further evidenced by statements advocating for the integration of entrepreneurship curricula with practical applications. Furthermore, the qualitative findings extended the quantitative results by explicitly identifying educational inequalities at CPUT. Consequently, academic support is regarded as a key element, which should be refined through constant interactions with stakeholders, such as sponsors, investors and industry experts. Not only the exposure to industry experts and investors is articulated as beneficial, networking and mentorship is seen as an indicator for highly innovative HEIs.

This insight adds nuance to the survey findings, in which respondents tended to acknowledge the importance of *PAS* without critiquing the academic entrepreneurship faculty. In conclusion, this reinforces evidence to view H3 as a strong indicator of *EI*.

The integration of both datasets suggests that *EI* among students is shaped by the interplay between *PEC*, *PSN*, and *PAS*. While *PEC* emerged as the strongest predictor quantitatively, the qualitative statements indicated a combination of interrelating factors. In summary, *PEC* cannot be regarded as a standalone factor, as academia and social support, manifested in conventions or norms, strongly interfere with one's self-belief. To conclude the triangulation process, a joint display of the integrated data provides an overview of the inferences drawn from the mixed-methods research design (cf. Table 5).

Table 5: Joint Display of Integrated Data Collection

| | Relevant quantitative findings | Focus group questions | Relevant qualitative findings | Meta-Inference |
|---|---|---|---|---|
| H1 | There was a wide consensus about the importance of *PEC* among participants (0.83 ≤ α ≤ 1.10), ß-coefficient = 0,57 | a. How would you approach any setbacks that happen to your business in the first year?<br>b. Around half of the survey participants were unsure about identifying business opportunities. Why do you think this uncertainty exists?<br>c. What kinds of skills or experiences make someone feel capable of becoming an entrepreneur? | Participants personal flexibility, risk management and people skills as useful traits | *EI* is primarily driven by self-efficacy beliefs mixed with human skills rather than purely technical business knowledge |
| H2 | The correlation between *PSN* and *EI* was weak (*β* = 0.33) and did not exhibit any coherence. | a. If you decide for yourself to become an entrepreneur: How supportive do you feel your family and peers are in light of that decision?<br>b. How do societal expectations influence your own career decisions? | Ambivalent surrounding (family support but societal disconnect) | Actual support (family/peers) and embedded norms (society/culture/job security expectations) may operate in opposite directions |
| H3 | The relationship between *PAS* and *EI* showed a moderate to strong positive correlation (*β* = 0.55) | a. How can a university assist in overcoming barriers for youth entrepreneurs?<br>b. How could CPUT better help you turn ideas into ventures?<br>c. What are the practical implications of your programme, where does it intersect with real-life experiences? | Theoretical academic simplification, no exposure to real-life cases as downside | Students recognize universities as potential enablers but feel current programmes lack authenticity due to minimal exposure to real-case scenarios. |

# 5 Discussion

This study makes a novel contribution to the literature by focusing on the interplay between academia, individual factors and social norms as antecedents of *EI*. It emphasizes the importance of measuring perceptions regarding *EI* in light of rampant youth unemployment in South Africa. By applying a mixed-methods approach, the study examined how entrepreneurial factors at the micro and meso levels affect *EI* among the youth in the Western Cape, South Africa. While *PSN* and *PEC* have been examined in other emerging countries in the sub-Saharan region (Abbas *et al*., 2020; Ephrem *et al*., 2019; Onyemaechi, 2024), the spatial focus on the Western Cape and the inclusion of *PAS* shift the perspective to the students' immediate lived experiences during their early adulthood.

Regarding *PEC*, the importance of personal skill development among the youth in South Africa has been well-established (Elizabeth *et al*., 2020; Mothibi *et al*., 2025; Urban, 2019; Zayd & Henry, 2017). In this context, practical business skills appear to exert a stronger effect on *EI* than a personality-focused approach (Zwane & Osuigwe, 2024, p. 6). This is further evidenced by the viability of small, micro, and medium-sized enterprises (SMMEs) in South Africa, which are highly dependent on effective management skills (Marivate, 2014, p. 70). However, the empirical findings did not provide a definitive picture regarding the most valued capacities. Despite the high self-esteem of the research participants, contextual research indicates that mass media is the primary influence on students' positive evaluations of *PEC* (Mothibi *et al.*, 2025, pp. 14-15). This diverges from the current findings, which highlight role models and academia as the most significant elements propelling *PEC*. To obtain a clearer picture of the underlying determinants of *PEC*, the individual's motivation to engage in entrepreneurship could be used as a moderating variable (Bell & Cox, 2015, p. 32).

In this study, *PSN* exerted only a moderate influence on *EI*, which diametrically opposes the existing literature pointing to a strong link between the two variables (Ephrem *et al*., 2019; Sampene *et al*., 2023). The participants emphasised qualitatively that South-African society is largely bound to traditional norms. However, their non-conformity regarding *PSN* contrasts with prevalent literature, which recognises setbacks in the entrepreneurial conviction of many groups due to

conflicting normative expectations (Karim *et al*., 2023, p. 425; Onyemaechi, 2024, p. 975). This finding is compelling, as literature directly associates the rise of an entrepreneurial spirit with the "social desirability of entrepreneurship" (Shane, 2003, p. 256). In contrast, this paper aligns with the findings of Bell & Cox (2015, p. 32), who identified an "identity pathway" as crucial for in-group behaviour. Such an identity is formed by answering questions such as "Who am I", "Where do I belong", "Where does my worth come from" and "Whom do I want to support" (Bell & Cox, 2015, p. 37). This raises the question of whether the distinct socio-economic backgrounds within the sample are representative of *PSN* on an aggregate level.

The variety of different perspectives must be augmented by zooming out to a holistic cultural perspective, as illustrated by the Inglehart-Welzel World Cultural Map (cf. Figure 14). This model measures the nexus between traditional versus secular values and survival versus self-expression values. In this regard, the position of South Africa does not allow for a definitive conclusion, as the country is located in the centre with no significant amplitude in either direction (Inglehart & Welzel, 2023). In retrospect, this comparison underscores the argument that *PSN* must be contextualised by considering the individual's cultural background and the overall surrounding conditions. To diminish the perceptual divergence regarding community support, an introspection of an approachable and delineated group could reinforce an understanding of the socio-cultural reality, as evidenced by Lazarsfeld's experiments in the 1930s (Jahoda et al., 1975, pp. 9-10).

In conclusion, the qualitative findings suggest that some individuals might be discouraged by the pervasiveness of traditional conventions, potentially leading to a gradual loss of interest in their personal *EI*. In line with the meandering position of cultural values in South Africa (Inglehart & Welzel, 2023), the vast majority tend to emancipate themselves from a rigorous normative construct.

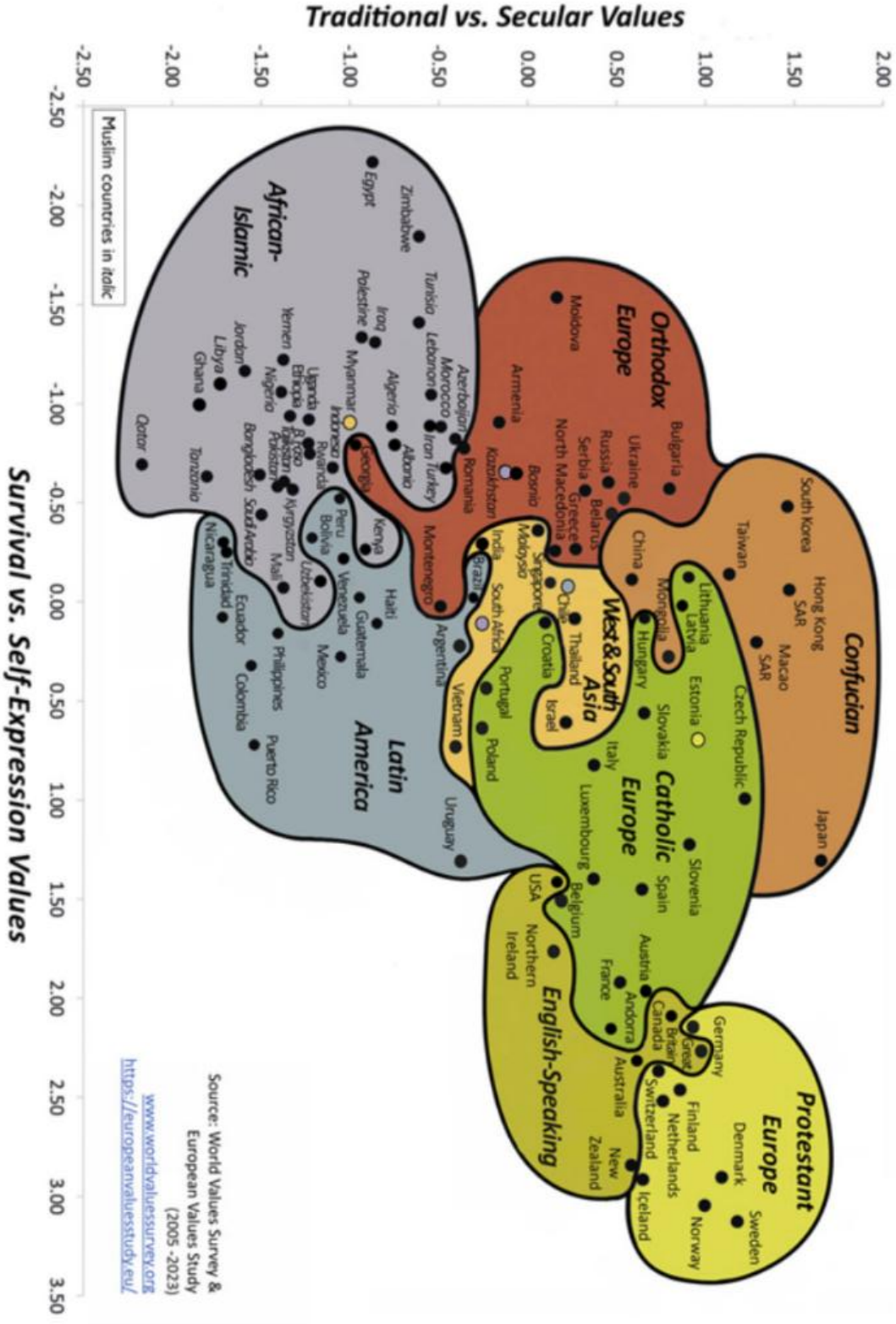


Figure 14: World-Cultural Map (Inglehart & Welzel, 2023)

Reflecting on *PAS*, the focus group criticised the lack of options regarding stakeholder engagement and business idea validation within the academic context. This aligns with the literature, which portrays shifting baselines from a traditional education-oriented system towards academic entrepreneurship and its numerous facets (Hallam *et al*., 2017, p. 77). Furthermore, the study findings share commonalities with previous research indicating a need for augmented support beyond theoretical learning content (Saeed *et al*., 2014, p. 27). Moreover, the call to incorporate industry partners and government policies into curricular activities reflects the students' aspirations (Syed & Spicer, 2025, pp. 7-19).

The students' desire to connect with investors, mentors, or incubators is acknowledged in recent literature, where accelerators are framed as catalysts for advanced entrepreneurship education (Toh *et al.*, 2025, pp. 6-7). Their exigencies for access to external resources is confirmed by findings from South Africa, which emphasise the need for intensified access to idea management and female-focused role models, thereby mirroring students' expectations for innovative formats (Mothibi *et al.*, 2025, p. 15). In summary, adjusting the syllabus should be considered a viable next step to align students' needs with the requirements of the faculty.

To augment this study, it must be considered that gender-related inequalities are persistent and thereby hinder women from developing *EI* (Brush *et al.,* 2019, p. 404). Precisely, research dedicated to the ingrained discrimination faced by female entrepreneurs in South Africa addresses the necessity of gender-equitable interventions (Derera *et al*., 2014, pp. 107-111). The prevalence of gender inequality within South Africa is substantiated by the fact that men tend to report higher scores for all determinants of *EI*, further reinforcing structural inequality between the genders (Malebana, 2015, pp. 625-626). This could potentially culminate in a situation where gender-bias against women leads to a diminished inclination to pursue entrepreneurship (Stoker *et al.*, 2024, p. 732).

## 5.1 Theoretical Implications

In future studies, *PSN* should be tested as a moderating variable, given its moderate correlation with *EI*. The devaluation of social norms among the youth is the

most significant finding. While positively connoted *PSN* tends to serve as a leitmotif, reflected in the aspiration to uplift one's community, negatively connoted *PSN* is widely disregarded by the targeted youth group.

Although South Africa cannot be assigned to a specific value system based on the coordinates of the World Cultural Map (cf. Figure 14), the importance of an overarching entrepreneurial ecosystem remains. The youth entrepreneurial ecosystem model SHAPE, developed by van der Westhuizen, serves as a valuable reference point. It identifies individual entrepreneurial orientation as a prerequisite for entrepreneurial performance (Westhuizen, 2024, pp. 40-45).

Without equal consideration of gender norms from the perspective of women, the study would miss the opportunity to specifically address the repercussions of a gender-insensitive entrepreneurial ecosystem. The eradication of gender disparities is already envisioned by the African Union's Agenda 2063 and must be reinforced in the coming years (Yami *et al.*, 2024, p. 3).

The IGWG, as a spearheading institution, has initiated gender-integrative measures that prioritise transforming an exploitative entrepreneurial culture into a continuum that considers both sexes equally (Yami *et al.*, 2024, p. 5). An adjusted framework (cf. Figure 15) explicitly highlights that gender norms should be treated as an intersectional topic to combat the deeply ingrained gender discrimination faced by women entrepreneurs globally (Panda, 2018, pp. 317-325).

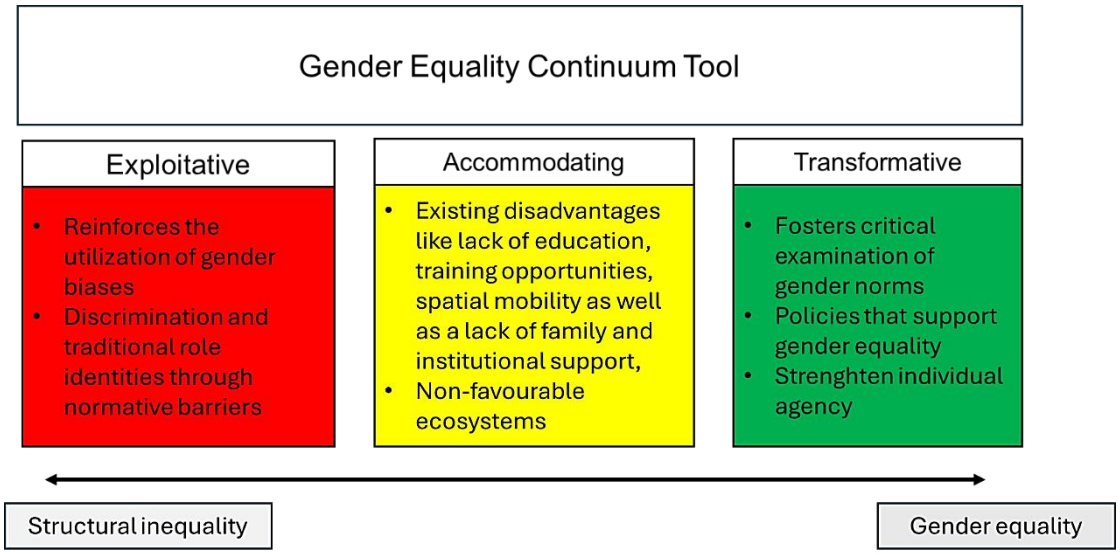


Figure 15: Adjusted Gender Equality Framework (IGWG, 2021)

## 5.2 Practical Implications

Academia must serve as a central node that catalyses students' individual drive by providing them with a sophisticated entrepreneurial toolkit. To realise an undertaking of this magnitude, HEIs must be mandated by the government to shift their conceptual approach towards a participatory learning culture. By showcasing real-life scenarios and providing access to relevant stakeholders (incubators, investors, and pitch-formats), students gradually develop a stronger belief in their ability to become successful entrepreneurs.

In this regard, it is insufficient for the NYDA and DHET to target their interventions generically across all 26 universities. The GEM report suggests that measures must be tailored to the respective local contexts (Bowmaker-Falconer *et al.*, 2024, p. 73). Other areas for official intervention include dedicating entrepreneurial role models or networks specifically to female students. Such entities could support the gender equality continuum by reducing deep-rooted inequality mechanisms. By absorbing gender discrimination at an early stage, they could function as counterweights to the prevalent environment of mistrust between female learners and their educators (Duby *et al.*, 2022, p. 11).

To achieve higher social recognition for entrepreneurial activity, it is essential to foster community-led initiatives such as the Hope Africa Collective. Through an

examination of their daily activities, it has become clear that uncontrollable factors such as poverty play a decisive role in hindering young people from initiating new ventures. Hope Africa Collective exemplifies an institution that nurtures the individual agency of young people by supporting them throughout their adolescence.

## 5.3 Limitations and Future Research

From a methodological perspective, the self-selection bias prevented the sample from being heterogenous. Restrictively, it could be argued that the sample may be too small to be representative of the target population (Simundic, 2013, p. 13). However, the agreement with CPUT stipulated that the web-based online survey remain open to the entire student body. This prevented the use of a randomised sample, which would have offered higher external validity, as students decided individually whether to participate. Another challenge is that potential participation by technically illiterate individuals would not ensure uniform conditions across the sample (Bethlehem, 2010, pp. 165-166).

Furthermore, the context-specific nature of the study, focusing geographically on the Western Cape and a single university, limits the generalisability of the results. The brief investigation period also constrains the reliability of this study, as perceptions are likely to evolve over time. Therefore, a longitudinal study involving the youth cohort (aged 18 to 34) could either substantiate or contradict the initial findings.

Lastly, as the focus group consisted exclusively of male participants, a gender-balanced approach may have yielded different results. Consequently, this study is not representative of the basic population and cannot be used to draw definitive conclusions about South African attitudes towards entrepreneurship.

Therefore, future research should incorporate a gender-balanced sample and extend the duration of the empirical study to meet the requirements of a longitudinal study. To guarantee a sufficient number of female participants, stratified sampling could ensure a highly diverse sample (Collins *et al*., 2007, p. 272). This would not only strengthen the generalisability of the study but also serve as a mean to challenge the systemic barriers facing female entrepreneurship.

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# Appendix

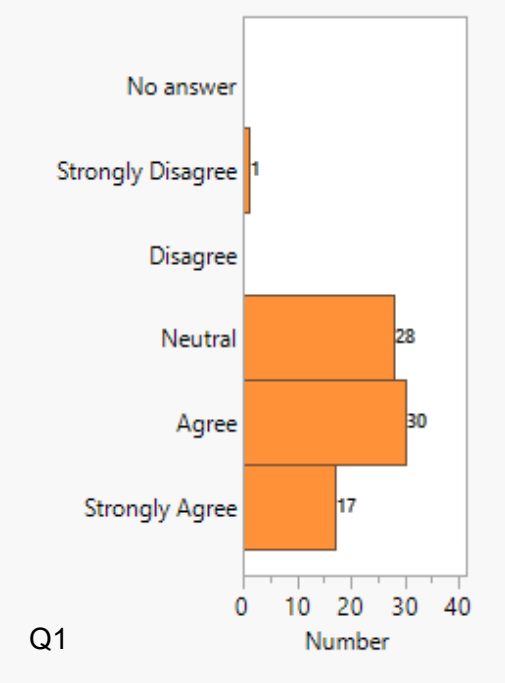
# Appendix A: Survey Results

Q1: I have sufficient knowledge and skills in starting and running a business.

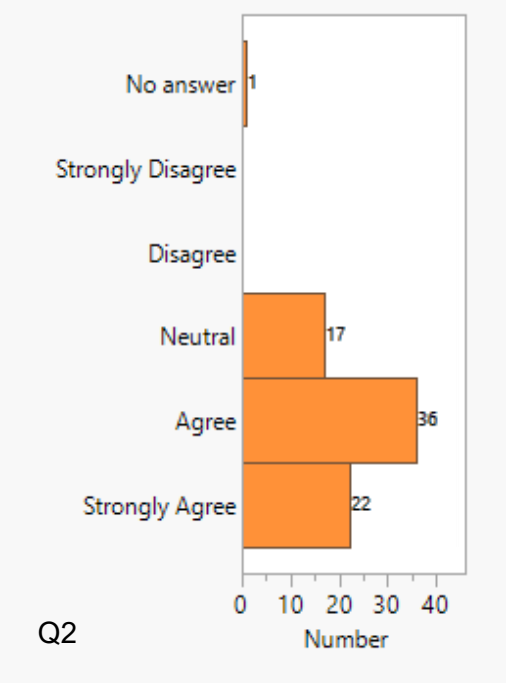
Q2: I can create a work atmosphere that inspires individuals to attempt new things.

Q3: I rely heavily on external support and guidance to carry out my own ideas.

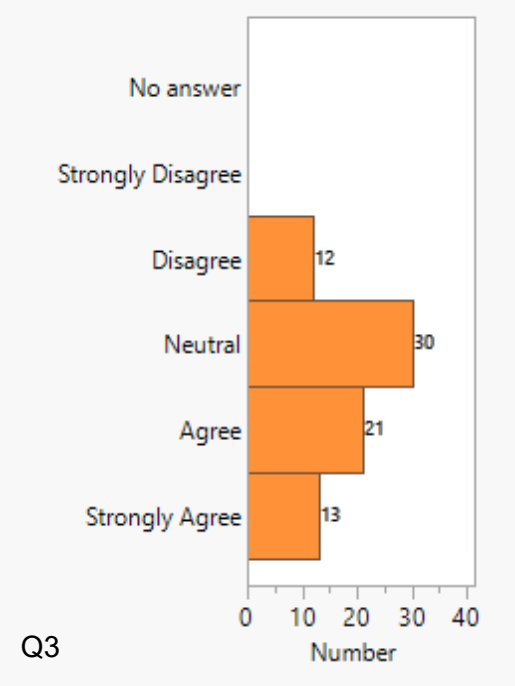
Q4: I am familiar with the institutional steps that are necessary to set up my own business.



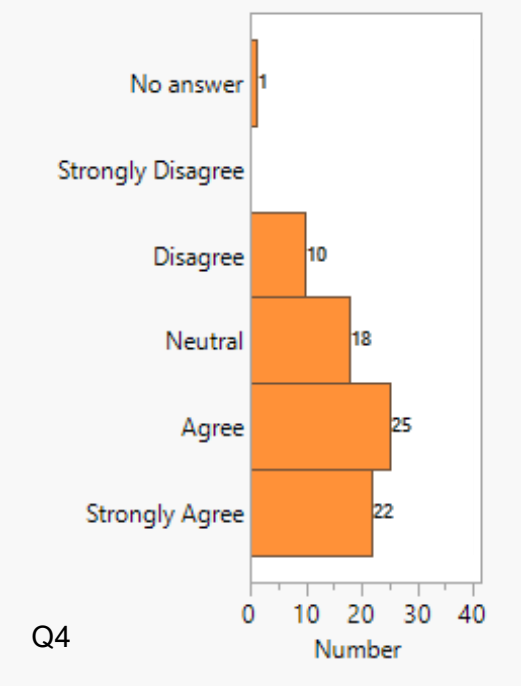
Q1



Q2



Q3



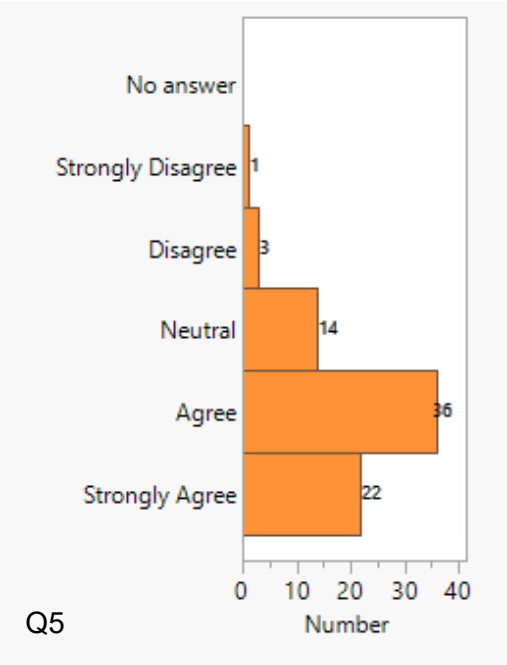
Q4

Q5: I am capable of working efficiently in the face of constant stress.

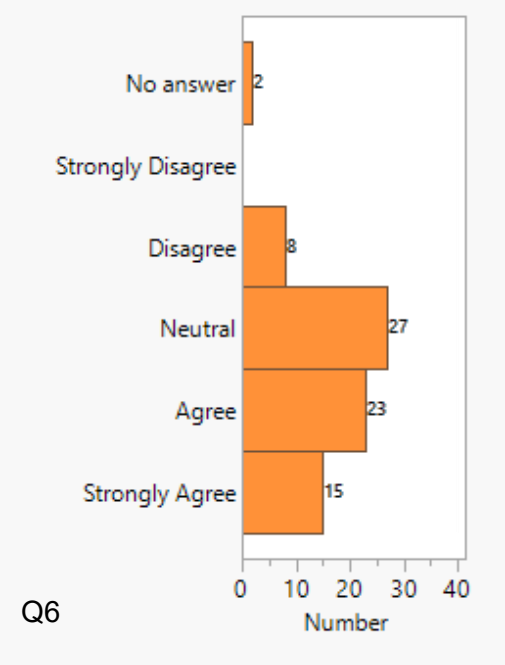
Q6: It is simple for me to locate business options in my field of expertise.

Q7: I assess my risk tendency as sufficient to be able to start up a business.

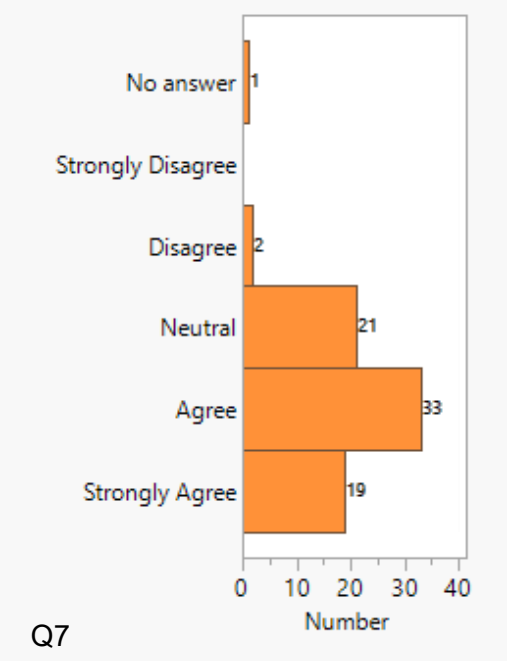
Q8: I intend to start a business within the next three years.



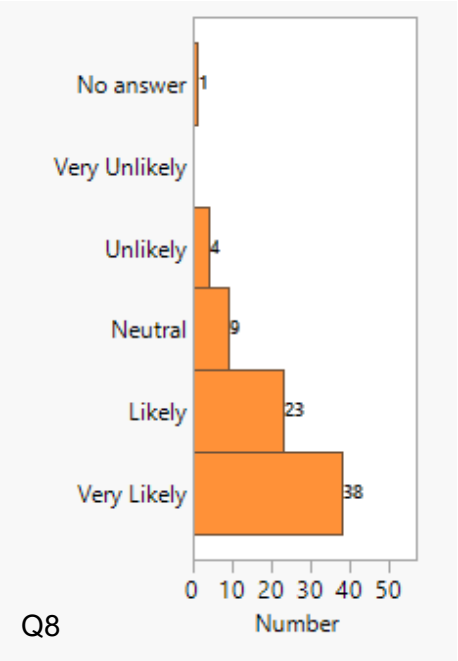

Q5




Q6




Q7



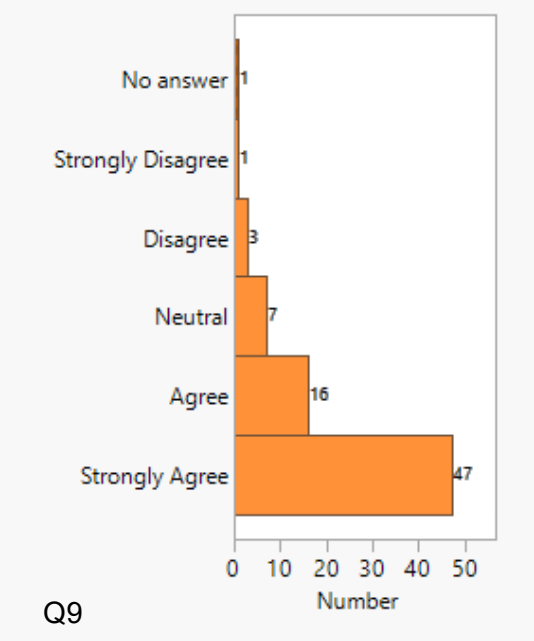

Q8

Q9: My professional goal is to become an entrepreneur.

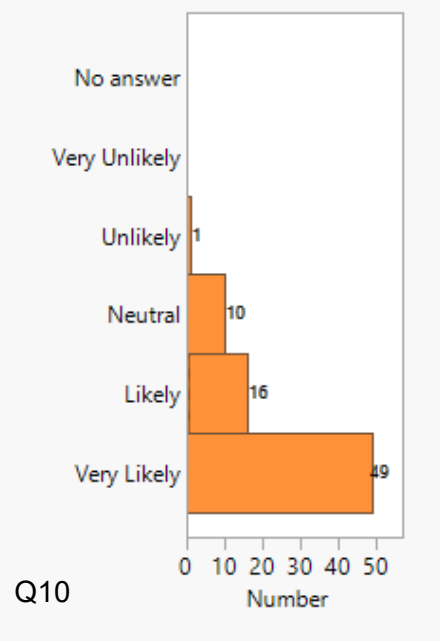
Q10: I am willing to go to any length to become an entrepreneur.

Q11: My professional ambition is to work as an entrepreneur in an already existing firm.

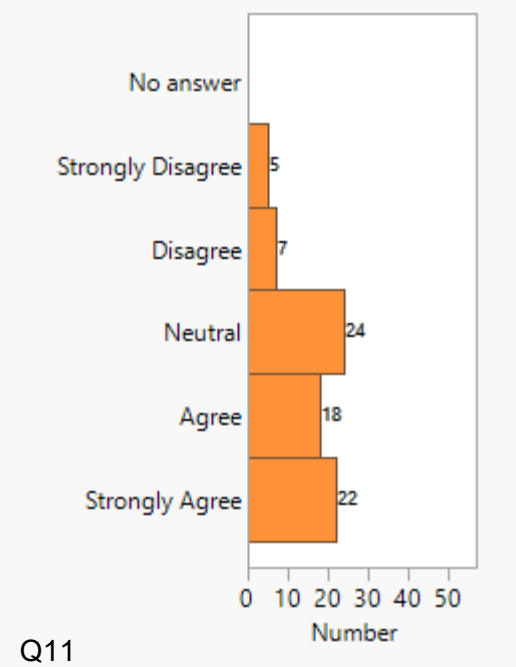
Q12: I have a tremendous desire to open up a business in a foreign country.



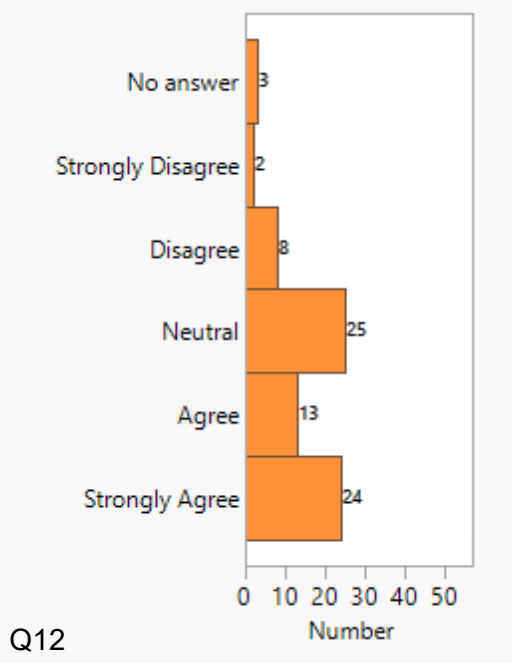

Q9




Q10




Q11



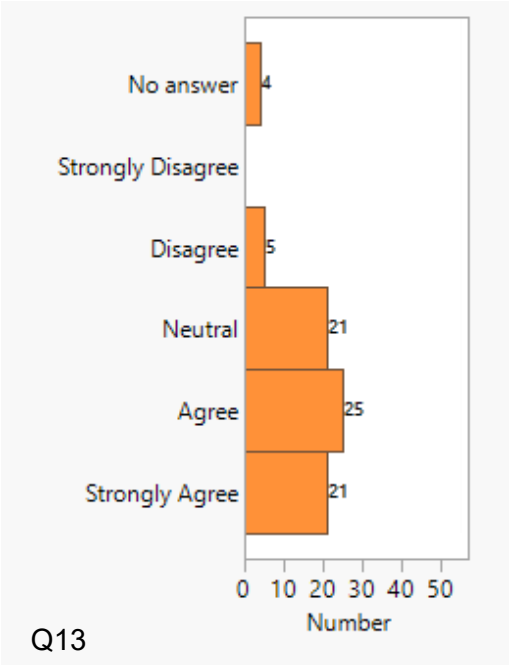

Q12

Q13: I dedicate my spare time to acquire knowledge about the functionality of entrepreneurial ventures.

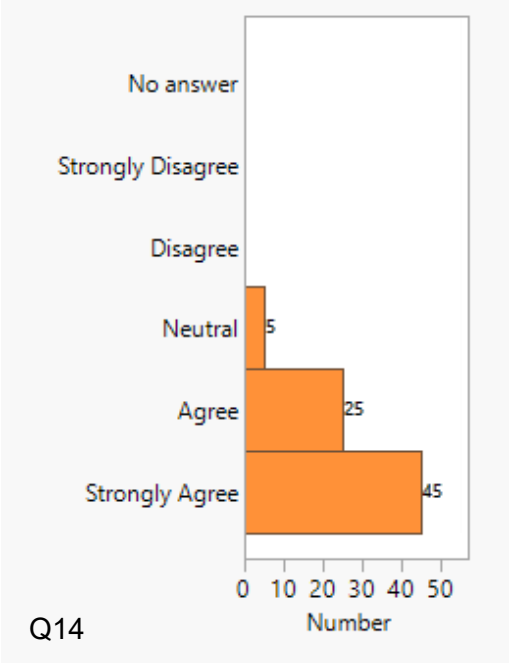
Q14: I will definitely support others on their way to build up a start-up.

Q15: The entrepreneur's role is generally valued in the society I'm living in.

Q16: The culture within my society is highly favourable towards entrepreneurial activities.



Q13



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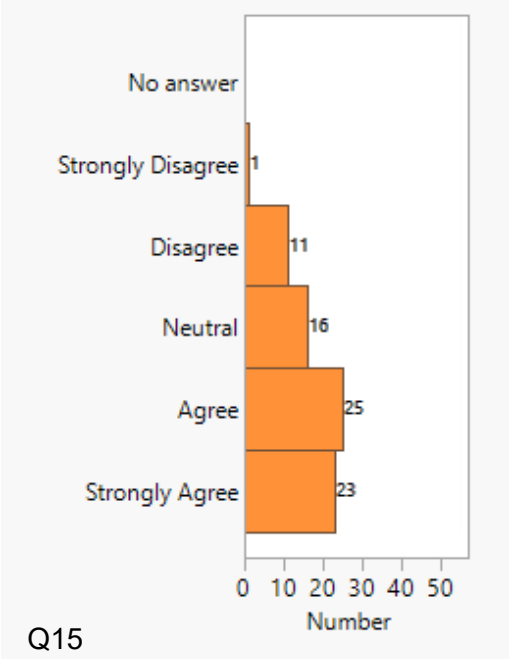

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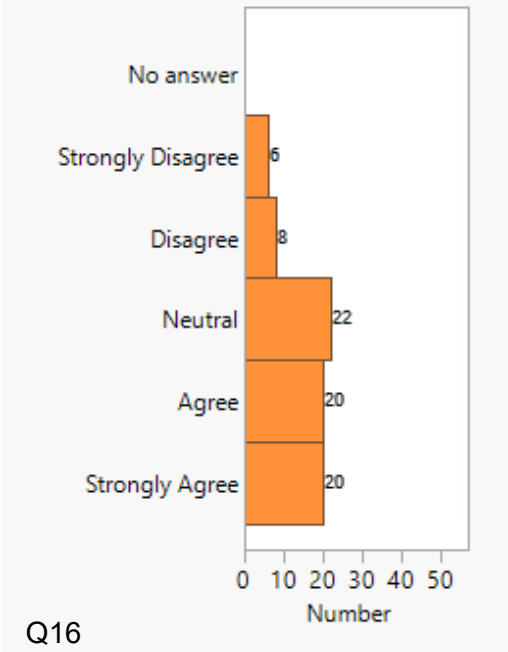


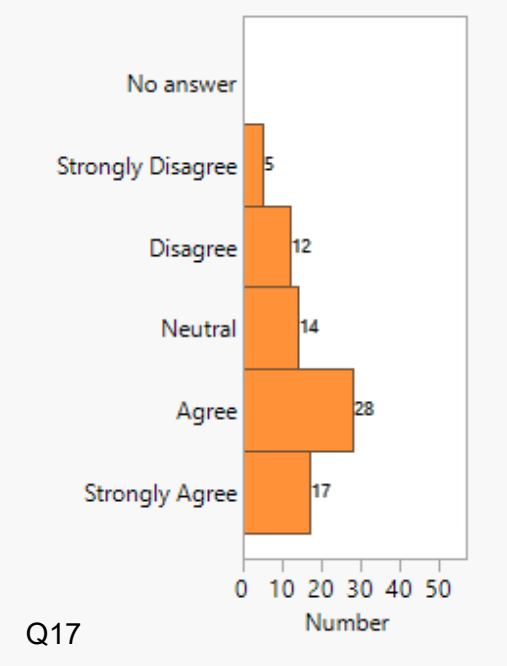
Q16

Q17: Most people in my society consider it an acceptable career option to start own businesses.

Q18: I know at least 2 stories about entrepreneurial ventures driven by family members or my peer group.

Q19: Self-employment is better than working for others.

Q20: My family would support the idea of starting my own business.

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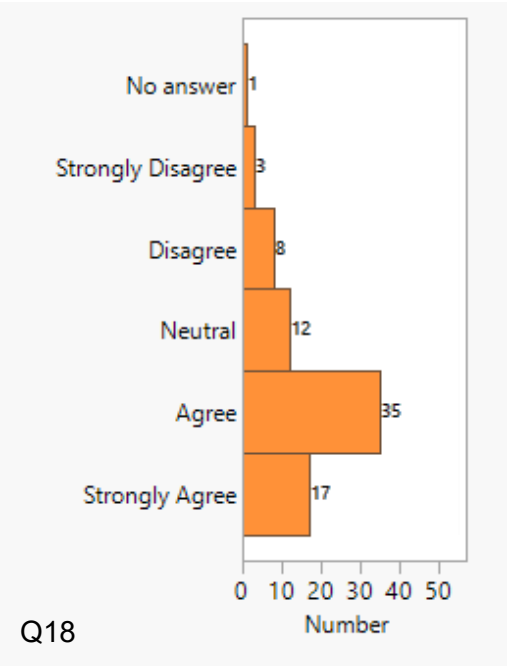


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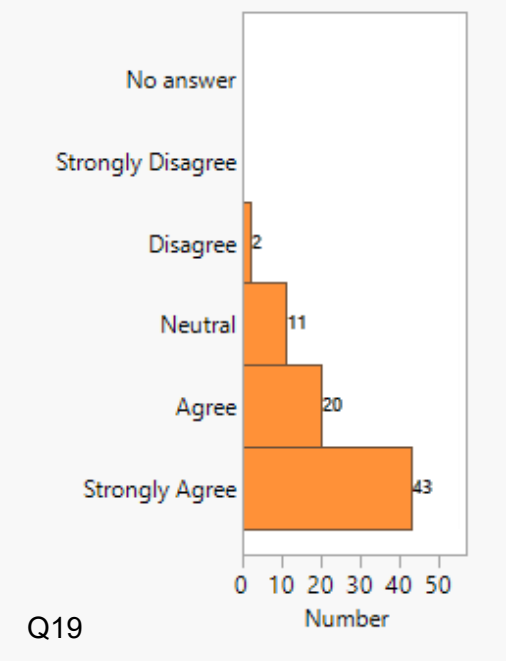


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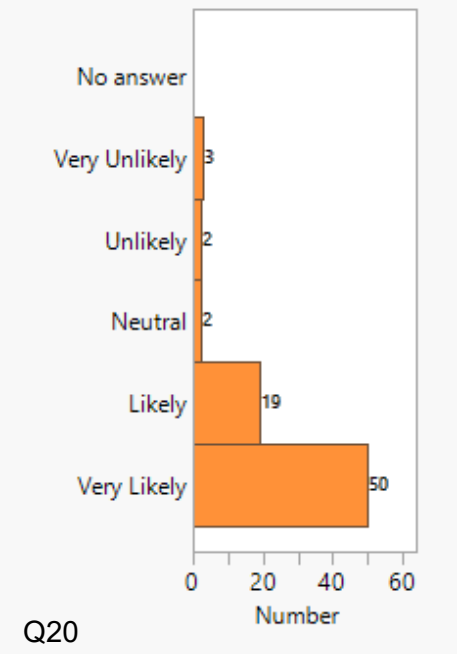


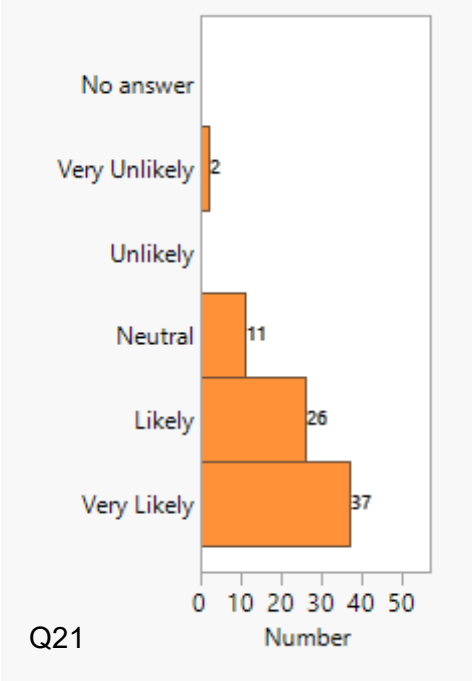

Q20

Q21: My peers would support the idea of starting my own business.

Q22: CPUT provides me with mentorship through my entrepreneurial academic education.

Q23: The Entrepreneurship Faculty at CPUT provides me with sufficient entrepreneurial support.

Q24: I am encouraged to pursue own business ideas by my entrepreneurship lecturers at CPUT.



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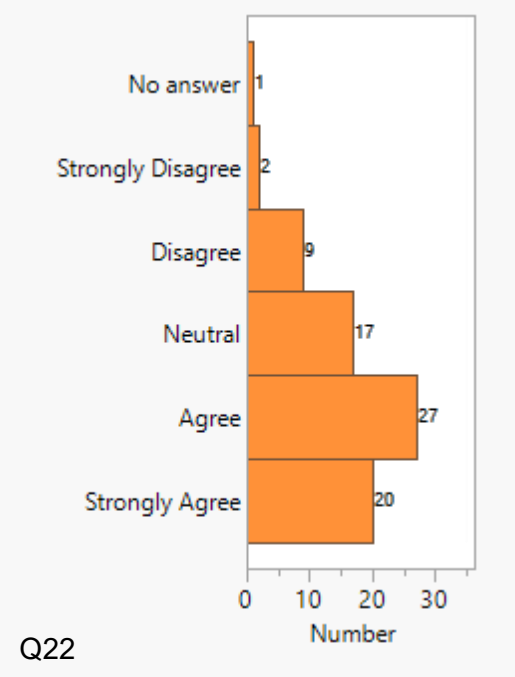

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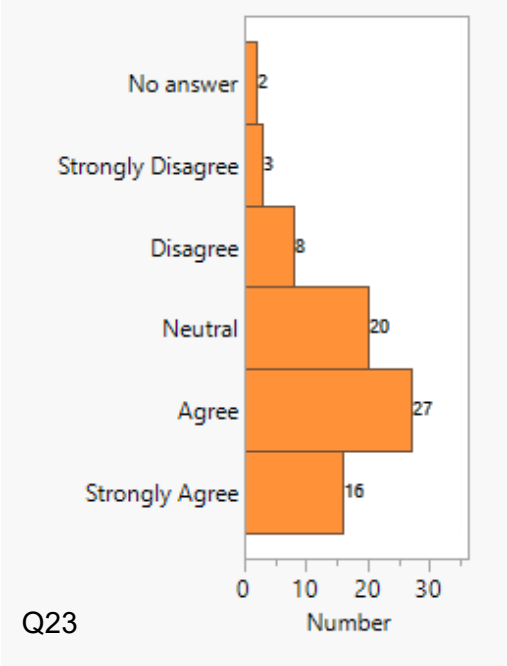

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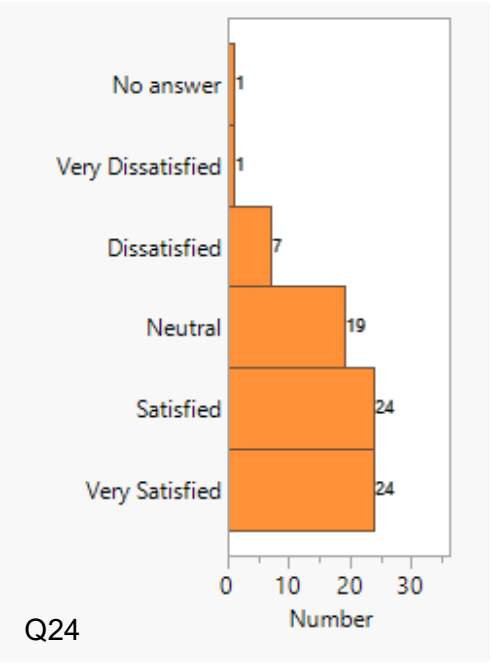


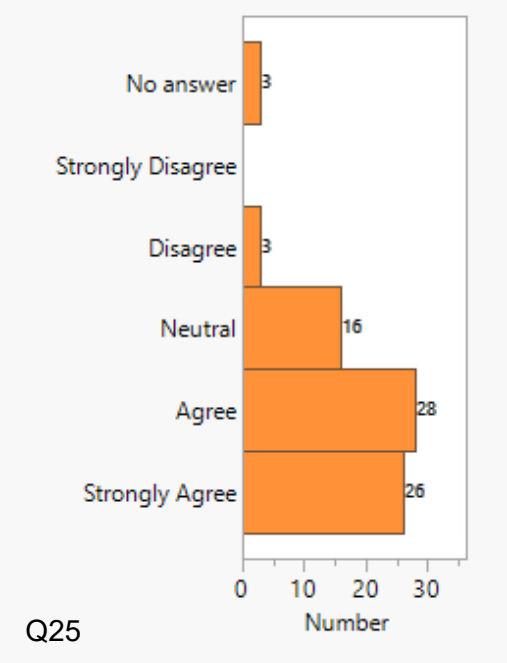
Q24

Q25: I'm of the opinion, that my entrepreneurship programme at CPUT is very effective in enhancing entrepreneurial skills.

Q26: The curriculum of the entrepreneurship programme concentrates too narrowly on theoretical entrepreneurship knowledge.

Q27: I consider the possibilities to establish my own entrepreneurial network at CPUT as sufficient.

Q28: I recognize the promotion of entrepreneurial events taking place under the flag of CPUT.



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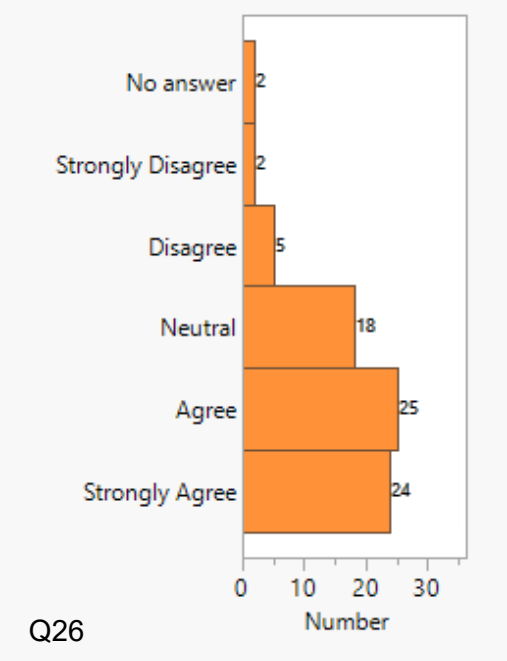

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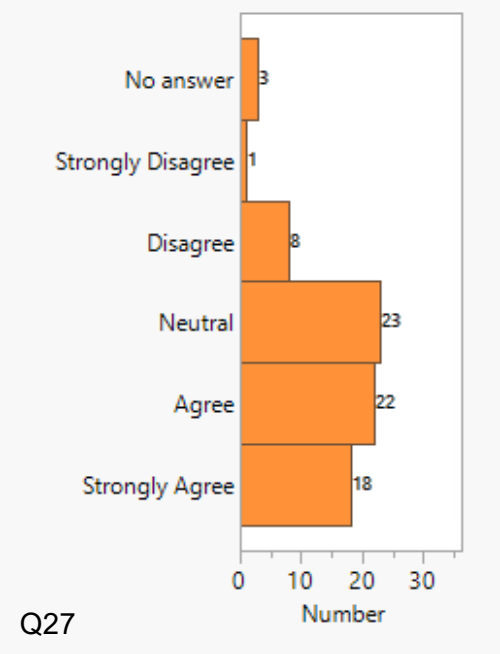

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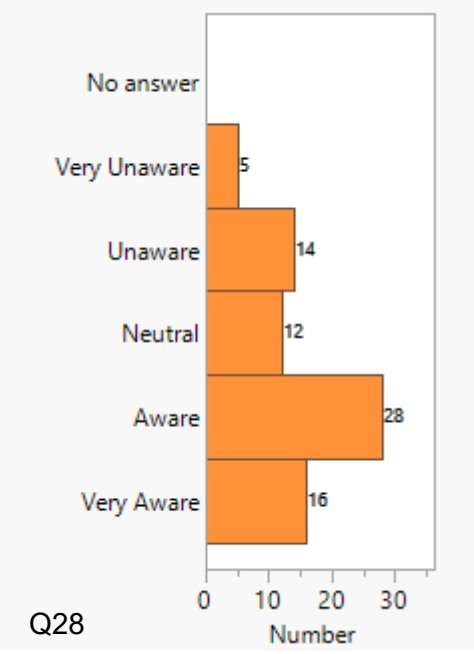
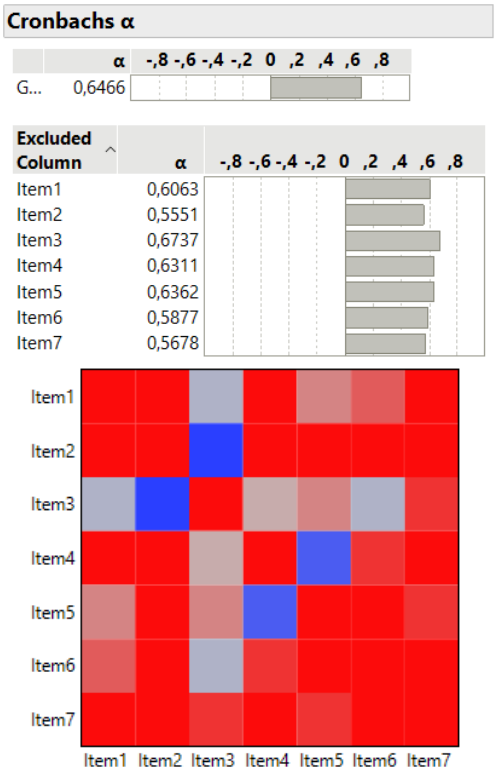
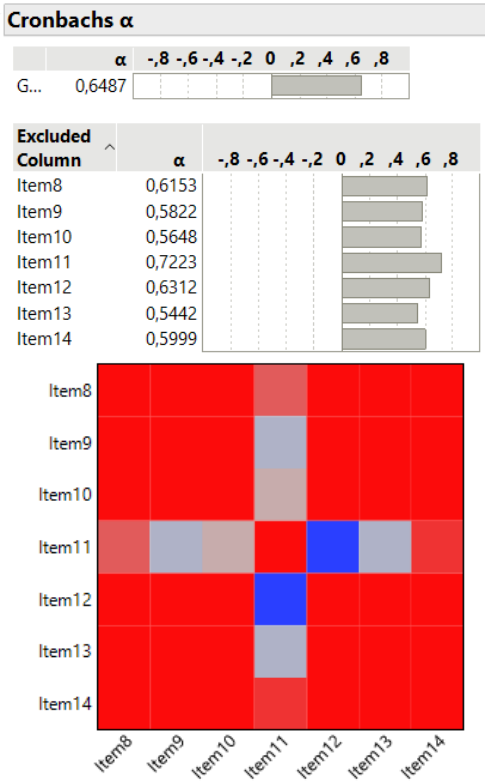


Q28

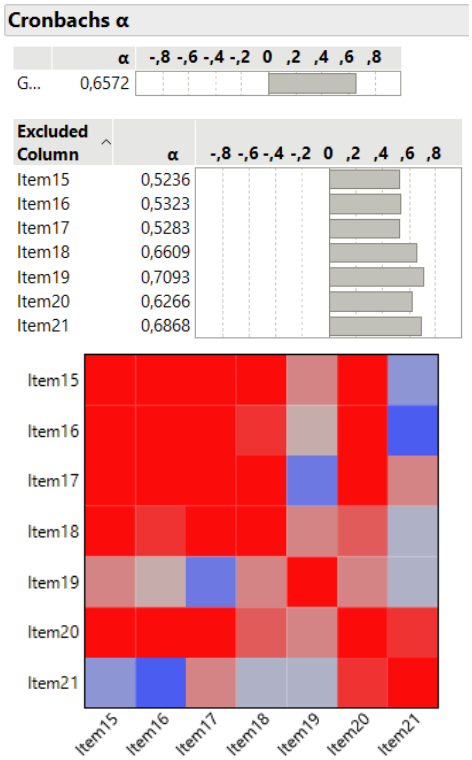
# Appendix B: Item analysis



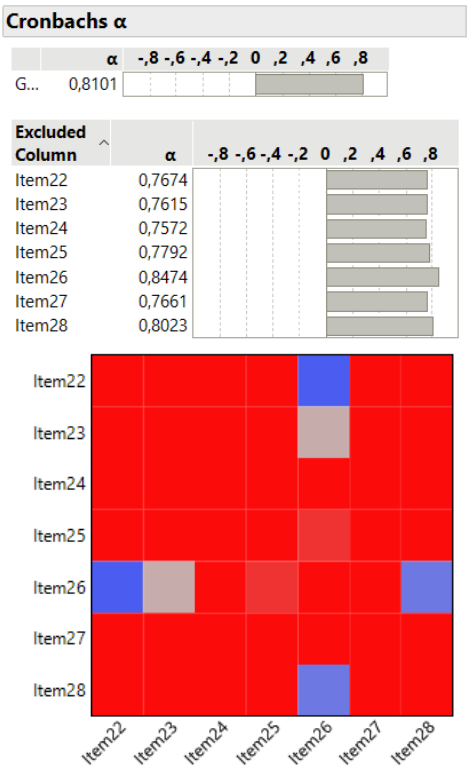

Cronbach's α PEC




Cronbach's α EI




Cronbach's α PSN




Cronbach's α PAS

# Appendix C: Focus group Script - Explanatory Sequential Design

### Introduction

This focus group is part of an Explanatory Sequential Mixed-Methods study investigating the influence of social norms, entrepreneurial capacity and academic support on *EI* among undergraduate students at Cape Peninsula University of Technology (CPUT). The quantitative phase (N=76) provided initial evidence supporting the three main constructions derived from the Theory of Planned Behaviour (Ajzen). The qualitative phase aims to further explore and explain the patterns, strengths, and surprising findings of the survey results.

### Purpose of the Focus Group

The purpose of this session is to:
- Deepen understanding of key quantitative findings.
- Explore underlying reasons, contextual factors, and lived experiences.
- Identify contradictions or ambiguities in the quantitative data.
- Strengthen validity through methodological triangulation.

### Moderator instructions

- Encourage open discussion and allow participants to speak freely.
- Maintain neutrality; avoid leading questions.
- Ensure all participants contribute.
- Use probing questions to deepen discussion.

### Session Structure & Time Allocation

Total Duration: 90 minutes
- Welcome & Warm-Up (10 minutes)
- Block A – Entrepreneurial Capacity (15-20 minutes)
- Block B – Social Norms (15-20 minutes)
- Block C – Academic Support at CPUT (15-20 minutes)
- Block D – Entrepreneurial Intention (15-20 minutes)

- Closing Reflection (15 minutes)

**Focus Group Script**

**Welcome & Warm-Up (5 minutes)**

Welcome everyone and thank you for participating. This session focuses on understanding your experiences with entrepreneurship, the support you receive, and how social norms shape your intentions. There are no right or wrong answers, but we're interested in your perspectives.

**Warm-Up-Questions:**

- What comes to mind when you hear the word “entrepreneurship”?
- Do you personally know entrepreneurs? How did they influence your view?

**Block A – Entrepreneurial capabilites (15-20 minutes)**

Quantitative findings from the survey:

- Strong agreement that students can inspire others (76%).
- High confidence in perceived stress management (76%).
- Mixed confidence in identifying business opportunities (50%).

**Questions:**

1. What comes to your mind first when you envision new business ideas? Any thought or picture?
   a. The survey showed that the majority feels confident in handling stress and inspiring others. How would you develop confidence?
   b. How would you approach any setbacks that happen to your business in the first year, when you can't really predict if it's going to be profitable over the next years?
2. Around half of the survey participants were unsure about identifying business opportunities. Why do you think this uncertainty exists?
   a. What kinds of skills or experiences make someone feel capable of becoming an entrepreneur? What is the role of socializing in shaping strategies of entrepreneurs? Would it be possible to develop a business by sitting in the garage and just testing by yourself?
   b. Are you convinced by autobiographical stories about successful entrepreneurs and how does it influence your potential next steps?

Probes: Can you give an example? What helped you learn that?

**Block B – Social Norms (15-20 minutes)**

Quantitative findings from the survey:

- Society values entrepreneurship (63%).
- Families strongly supportive (65%).
- Mixed perceptions of cultural favourability.

**Questions:**

1. If you decide for yourself to become an entrepreneur: How supportive do you feel your family and peers are in light of that decision?
2. Some survey participants felt society does NOT favour entrepreneurship. Why might that be? How would you consider the status and respect in Cape Town for people who were successful by launching a new business?
3. How do societal expectations influence your own career decisions?
4. Has someone ever had the chance to successfully influence your decision in terms of education? (vice versa) Do you have any role models in your life that are considered as entrepreneurs and what do you think was the critical factor to see this person as a role model?

**Block C – Academic Support at CPUT (10 minutes)**

Quantitative findings from the survey:

- Mentorship and faculty support rated positively.
- Curriculum perceived as too theoretical (64%).
- Mixed perception of networking opportunities.

**Questions:**

1. How can a university assist in overcoming barriers for youth entrepreneurs? (60% unemployment)
2. In what ways does CPUT support your entrepreneurial development? Follow-up: Why is academic support for you as entrepreneurship student key? In an academic context, how should teaching be adapted to equip more entrepreneurs with the relevant skills?
3. Many students felt the programme is too theoretical. What are the practical implications of your programme, where does it intersect with real-life experiences (speaker events / networking / panel discussion)?
   a. How could CPUT better help you turn ideas into ventures?
   b. How is your perspective on entrepreneurial role models from CPUT (lecturers / professors)?

**Block D – Entrepreneurial Intention (10 minutes)**

Quantitative findings from the survey:

- 50% intend to start a business within 3 years.
- 64% would go to great lengths to become entrepreneurs.

**Questions:**

1. Please describe the main drivers for young people in the Western Cape to become entrepreneurs.

2. Who has the upper hand to educate the young generation in developing an entrepreneurial mindset? (formal education, individuals, society)

3. For those who are unsure – what holds you back to develop an entrepreneurial mindset? Are there certain economic situations (e.g. depression, high interest rates) or personal constellations that affect the decision for or against launching your own venture? (macro-level perspective)

4. Do you think that *EI* is generally more opportunity-driven or necessity-driven in your society?

**Reflection (5 minutes)**

**Final Questions:**

- What is the most important supportive intervention a young entrepreneur in South Africa needs right now?
- If you could change one thing about entrepreneurship education at CPUT, what would it be?

**Closing Statement**

Thank you for your participation. Your insights will help to contextualize and explain the quantitative findings and contribute to recommendations to strengthen youth entrepreneurship in South Africa.

# Appendix D: Coding paradigm (axial and selective coding)