

University Students' Entrepreneurial Intentions: The Role of Gender, Extra-Curricular Activities and Government Support

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Abstract

Entrepreneurship education has been identified across literature as a significant determinant of entrepreneurial intentions. However, formal or classroom entrepreneurship education is insufficient to effectively influence students' entrepreneurship intentions. Ratten and Usmanij (2021) argued that entrepreneurship education is highly dependant on experience-based learning and industry connections. It is therefore probable that extra-curricular entrepreneurship activities enhance students' entrepreneurial intentions. Furthermore, the South African Entrepreneurial Framework Conditions of access to finance, government entrepreneurial programmes and government policies, support and relevance scored below 5 in a 2021 survey, therefore, there is need to research and implement corrective strategies. This study sought to investigate the influence of extra-curricular entrepreneurship activities, government support and gender on students' entrepreneurial intentions. The study adopted a cross-sectional quantitative research approach. Data was collected from 197 undergraduate entrepreneurship students from two public universities in Durban, South Africa. The findings revealed that extra-curricular entrepreneurship programmes and government support have a significant positive influence on students' entrepreneurial intentions. The researchers recommend the integration of formal entrepreneurship education with seminars, conferences, guest speakers and industry networks. Furthermore, governments should intensify entrepreneurship support programmes for young people, conduct awareness campaigns and establish strong networks with higher education institutions.

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1. Introduction

1.1. Background

Entrepreneurship has in recent years, especially the 21st century, played a huge role in economic development of several countries. According to GEM (Global Entrepreneurship Monitor) (2023), entrepreneurship creates job opportunities and income, converts ideas into new products and services and facilitates the development of new technologies and processes. Similarly, Bowmaker-Falconer and Meyer (2022) argued that entrepreneurship generates employment and wealth, promotes innovation, productivity and economic growth, creates new opportunities and sustains societal health.

Meyer and Meyer (2022) stated that during the GEM 2021/2022 report launch at the Expo 2020 Dubai in the United Arab Emirates, various speakers emphasised that most employment on a global scale is offered by small and medium enterprises (SMEs). In addition, the South African president, President Cyril Ramaphosa during the State of the Nation Address on 10 February 2022 highlighted that employment creation is mostly a function of the private sector, in particular, small and medium businesses not the government (Meyer & Meyer, 2022). For this reason, there has been calls from a global to a country level scale to promote entrepreneurship development. Various stakeholders ranging from governments, educational institutions and societies have been instrumental in promoting entrepreneurship growth and development.

Educational institutions have introduced entrepreneurship education courses in their curriculum and increased entrepreneurship research output. Several research studies (Hassan, Anwar, Saleem, Islam, Hussain, 2021; Uleanya, Omotosho, Gamede, 2021; Wu, Jiang, Wang, Yu, Wang, Pan, 2022; Phiri & Chasaya, 2023) have identified entrepreneurship education's positive influence on students' entrepreneurial intentions. In a most recent study conducted by Phiri and Chasaya (2023), the researchers found a strong significant correlation between entrepreneurship education and university undergraduate students' entrepreneurial intentions. However, research has also identified entrepreneurship educations' over reliance on theory, posing a significant negative influence on students' entrepreneurial intentions as the relevant skills for entrepreneurial success would not be developed. Wang, Mundorf and Salzarulo-McGuigan (2022) stated that education that relies on theoretical examinations stifles students' creativity.

On a similar notion, Omotosho, Gamede, Vezi-Magigaba and Ayandibu (2022) argued that the teaching methods employed in most South African universities are mostly theoretical and there is a shortage of skills acquisition centres to facilitate the assimilation of practical entrepreneurship skills by students. Unarguably, this can limit the development of relevant entrepreneurial skills in students necessary for entrepreneurship success. Huang-Saad, Bodnar and Carberry (2020) argued that over reliance on theory in entrepreneurship education makes the subject boring, therefore, teaching should be mostly practical. There is therefore a need to review the entrepreneurship education offered to students to assess its

suitability for entrepreneurial development and practice. The course design and structure are paramount in influencing students' entrepreneurial intentions and activities. Arranz, Arroyabe and Arroyabe (2018) postulated that students' perceptions of insufficient experience, training and funds hinder their potential to start and run their own businesses.

Various authors (Bux & Van-vuuren, 2019; Greenwood, 2021; Kabonga & Zvokuomba, 2021, Omotosho et al. 2022) identified lack of capital and funding as a major barrier to students undertaking entrepreneurial activities. According to Bowmaker-Falconer and Meyer (2022), on the South African Entrepreneurial Framework Conditions, access to finance for entrepreneurs scored 3.4/10 whilst government entrepreneurial programmes scored 3.1/10. It is probable that perceptions over shortage of funding and insufficient support from the government has a negative influence on students' entrepreneurial intentions. Omotosho et al. (2022) argued that most South African entrepreneurs are from poor backgrounds and have little or no knowledge on the availability of entrepreneurship capital sources. In addition, Bowmaker-Falconer and Meyer (2022) stated that in 2021, 21.8% of early-stage South African entrepreneurs indicated that they exited business due to financial problems.

Therefore, this study investigated the influence of extra-curricular entrepreneurship activities, government support and gender on students' entrepreneurial intentions to determine effective ways to enhance university students' entrepreneurial intention.

1.2. Problem Statement

Research has identified entrepreneurship education offered in South African institutions as mostly theoretical and lacking practical application. Omotosho et al. (2022) argued that entrepreneurship education offered in most South African universities is designed to make students pass their examinations and lack practical orientation. Furthermore, the authors argued that there is a shortage of entrepreneurial role models and skills acquisition centres for entrepreneurship students (Omotosho et al., 2022). It is therefore evident that classroom-based entrepreneurship education is insufficient to promote entrepreneurial activity in students and recent graduates.

Entrepreneurship education, access to finance, government entrepreneurial programmes and government policies, support and relevance had poor scores on the 2021 South African Entrepreneurial Framework Conditions, all scored below 5. Entrepreneurship education at school and post-school level scored 2.7/10 and 3.6/10 respectively whilst government entrepreneurial programmes and government policies, support and relevance scored 3.1/10 and 3.4/10 respectively. (Bowmaker-Falconer & Meyer, 2022). Furthermore, the GEM South Africa 2021/2022 report indicated that only 17.2% of South African graduates venture into entrepreneurship, 0.5% lower than non-graduates (Bowmaker-Falconer & Meyer, 2022).

In addition, according to Bowmaker-Falconer and Meyer (2022), in 2019 and 2021, 28.8% and 21.8% of South African early-stage entrepreneurs cited problems getting finance as the reason why they exited

their business. It is probable that insufficient entrepreneurship education and poor access to finance negatively impacts on entrepreneurial activity uptake by students and graduates. The research problem statement therefore is: Students who attend extracurricular entrepreneurship programs (workshops, conferences, seminars) offered on campus, and those who are aware of government bodies/programs or private organisations that support entrepreneurial or small business development develop high levels of entrepreneurial intentions.

1.3. Research objectives

The research objectives of the study are as follows:

1. To investigate the impact of extracurricular entrepreneurship programs (workshops, conferences, seminars) offered on campus on University of KwaZulu-Natal and Durban University of Technology students' entrepreneurship intentions.
2. To investigate the impact of University of KwaZulu-Natal and Durban University of Technology students' awareness of any government bodies/programs or private organizations that support entrepreneurial or small business development on their entrepreneurship intentions.
3. To investigate the impact of gender on University of KwaZulu-Natal and Durban University of Technology students' entrepreneurship intentions.

The remainder of the paper is structured as follows:

Section 2 reviews literature and research in the field of entrepreneurship and related fields. The section reviews research that lends support to the development of the current study. Section 3 outlines the research methodology adopted for the current study, highlighting the research approach and design, sampling strategy and sample size and the data collection and analysis methods. Section 4 presents the research findings. Section 5 discusses the managerial implications regarding the study whilst the final section, section 6 discusses the conclusions, research limitations and directions for future research.

2. Literature Review

2.1. The concepts of entrepreneur and entrepreneurship?

Baumol (2008: 2) defined entrepreneurs as "individuals who create a new firm or some other economic organization or who launch some economic activity that they will carry out at least initially". Bowmaker-Falconer and Meyer (2022) argued that individuals who are intentional about entrepreneurship or thinking about starting a business are not regarded as entrepreneurs. Baumol (2008) together with Bowmaker-Falconer and Meyer (2022) emphasized that entrepreneurs are active, not intentional about entrepreneurship. In contrast, Baumol, Schilling and Wolff (2009) argued that creative individuals with a strong will to engage in entrepreneurship fit the definition of entrepreneurs. Unlike

Bowmaker-Falconer and Meyer (2022), Baumol et al. (2009) definition of entrepreneurs includes individuals with an intention to start a business, not only those who have already started a business.

Entrepreneurship is the practice of establishing and operating a business enterprise. Entrepreneurs therefore invest their resources and effort for a financial gain. GEM (Global Entrepreneurship Monitor) (2023:27) defined entrepreneurship as “the act of starting and running a new business, in other words, it is the act itself that is important”. GEM (Global Entrepreneurship Monitor) (2023) concurs with Bowmaker-Falconer and Meyer (2022) who argued that entrepreneurship is when individuals are actively involved in establishing business ventures and invest resources and effort to get a business running.

2.2 Extra-curricular activities in entrepreneurship education

Education delivery can be both formal and informal, the same applies to entrepreneurship education. Doan and Sung (2018) stated that universities offer educational activities and support to help promote student entrepreneurship and argued that such extra-curricular activities are important. Souitaris, Zerbinati and Al-Laham (2007) defined entrepreneurship extra-curricular activities as actions and experiences that take place in or outside the university and are not part of the university’s official curriculum. Nguyen, Nguyen, Phan and Vu (2021) argued that entrepreneurship extra-curricular activities augment the formal education curricular which is usually offered through coursework. In light of this, it is probable that formal education is insufficient for the effective delivery of entrepreneurship education which has an adverse effect on the development of entrepreneurial skills and behaviour in students. Arranz, Ubierna, Arroyabe, Perez and Arroyabe (2017) argued that the objective of entrepreneurship extra-curricular activities is to encourage entrepreneurial behaviour by supporting the interest and intention to starting a business. Pittaway, Rodriguez-Falcon, Aiyegbayo and Kind (2011:40) identified several different forms of entrepreneurship extra-curricular activities, “entrepreneurship games, business plan competitions, exchanges, business mentoring, clubs and societies, pre-incubators, workshop programs, entrepreneurship support programs, developing new product and innovation competition, idea development, and business incubators”. In addition, technology has paved way for learning through digital media and interactions with TED talks and social media content providing valuable entrepreneurial knowledge to students.

Arranz et al. (2017) argued that the relationship between entrepreneurship extra-curricular activities and entrepreneurship intention has a solid theoretical foundation. For this reason, Angulo (2019) argued that learning through extra-curricular activities can be equated to experiential learning whilst Couetil, Shartrand and Reed (2016) argued that the Kolb’s theory of experiential learning identified experience as integral to learning, a change in mind-set and development. It is probable that when students participate in business plan competitions, attend business workshops and mentoring sessions and are part of business incubators, they are more likely to be entrepreneurially active. Entrepreneurship extra-

curricular activities provide hands on training which can potentially stimulate learning better than formal education. For this reason, Binks, Starkey, and Mahon (2006) argued that it is important to investigate the effect of participation in entrepreneurship extra-curricular activities on entrepreneurial skills and behaviour.

2.3 Entrepreneurship education and entrepreneurial intention

Ginanjar (2016) defined entrepreneurship education as a course offered by educational institutions with a focus on teaching the theory and practice of entrepreneurship. Ginanjar (2016) definition focuses on formal education and excludes informal entrepreneurship education. Linan, Leon and Zarnowska (2008) stated that entrepreneurship education is education that seeks to develop in students the relevant entrepreneurial knowledge, skills, attitudes, and personal qualities. Linan et al. (2008) definition of entrepreneurship education shows that it goes beyond theory as skills and qualities are developed through practice.

Hassan et al. (2021) found that entrepreneurship education positively influences entrepreneurial intention and facilitates individual entrepreneurship orientations and motivations. For this reason, the authors argued that there is a need for new educational policies that support students' current and future entrepreneurial ventures (Hassan et al., 2021). Hassan et al. (2021) findings imply that even though entrepreneurship education was found to have a positive association with entrepreneurial intentions, there is a need to review and assess the current curriculum for its effectiveness in developing students for entrepreneurship. Meyer and Meyer (2022) argued that entrepreneurship education should teach creative thinking and problem-solving skills, the functionality of economies and business management skills. The authors went on to question if these aspects are taught in South African entrepreneurship education.

Wang et al. (2022) purported that effective entrepreneurship education promotes entrepreneurial creativity. Wang et al. (2022) referred to effective entrepreneurship, therefore, it can be argued that entrepreneurship education should be designed in a specific way to enhance entrepreneurial creativity. Unlike Meyer and Meyer (2022), the authors did not specify on what makes entrepreneurship education effective. However, Omotosho et al. (2022) argued that entrepreneurship education in South African institutions should be augmented with skills acquisition centres, entrepreneurship role models who provide mentorship and coaching services and innovative teaching methods that combine theory and practice. Wu, Jiang, Wang, Yu, Wang and Pan (2022) posited that entrepreneurship education increases students' entrepreneurial self-efficacy and intentions. However, the authors argued that entrepreneurship education should take a practical approach to effectively increase students' entrepreneurial intentions, give students more platforms to practice entrepreneurship such as engaging in entrepreneurship competitions (Wu et al., 2022).

2.4 Extra-curricular entrepreneurship programs and entrepreneurial intention.

Arranz, Ubierna, Arroyabe, Perez and Arroyabe (2016) found a significant effect of curricular and extracurricular activities on students' entrepreneurial attitudes. However, Arranz et al. (2016) concluded that curricular and extracurricular activities reduce students' entrepreneurial intentions and capacity. Contrary to Arranz et al. (2016), Li, Pervaiz and He (2021) concluded that extracurricular activities and curriculum are positively associated with students' entrepreneurial intentions. Li et al. (2021) argued that extracurricular activities offer practical learning opportunities for students and facilitates learning through social interaction. It is probable that students would learn entrepreneurship better in practice than in theory. de Moraes, Fischer, Guerrero, da Rocha and Schaeffer (2021) emphasized the effectiveness of establishing and maintaining connections with the broader entrepreneurial ecosystem over traditional teaching approaches in developing entrepreneurship. For this reason, de Moraes et al. (2021) suggested that universities invest in more flexible teaching approaches and relations with businesses.

Research conducted by Cui and Bell (2022) emphasized the positive influence of entrepreneurial education activity on entrepreneurial intentions through behavioural entrepreneurial mindset. The findings lend support to research conducted by Li et al. (2021) and de Moraes et al. (2021), however contradicting research by Arranz et al. (2016). Cui and Bell (2022) argued that effective entrepreneurial education activities foster a positive entrepreneurial behavioural mindset which then positively influences students' entrepreneurial intentions. Research conducted by Issa and Tesfaye (2020) concluded that extracurricular entrepreneurship courses explained significant differences in students' entrepreneurial intentions. Similar to Li et al. (2021), de Moraes et al. (2021) and Cui and Bell (2022), the findings reiterated the positive impact of extracurricular entrepreneurship programmes on students' entrepreneurial intent.

Cavalcante, Sousa-Filho and Lessa (2021) proposed the inclusion of direct and active participation in real-life entrepreneurship scenarios in entrepreneurship education curriculum. This implies the need for entrepreneurship education to be more practical than theoretical and adopt innovative approaches. Similarly, Swarupa and Goyal (2020) proposed an overhaul of the entrepreneurship education curriculum to combine theory, practical activities and training for effective results. Swarupa and Goyal (2020) together with Cavalcante et al. (2021) concur with the researchers who strongly argue that over reliance on theory in entrepreneurship education is insufficient for effective entrepreneurial development. Maharana and Chaudhury (2022) concluded a positive association between entrepreneurship education and extra-curricular activities.

2.5 Government support and entrepreneurial intentions.

Omotosho et al. (2022) argued that most young South African entrepreneurs have limited knowledge and accessibility of funding to support their entrepreneurship ventures. Similarly, Kabonga and

Zvokuomba (2021) identified lack of capital as a barrier to student entrepreneurship. With inadequate resources, students are most likely to be discouraged from engaging in entrepreneurship lowering their entrepreneurial intentions. Park, Kim and Ko (2015) found a significant positive indirect influence of government's entrepreneurial support policies on entrepreneurial intentions. The authors defined government's entrepreneurial support as educational, financial and marketing support and found all three variables to have an indirect positive correlation with entrepreneurial intentions (Park, et al., 2015). Park et al.'s (2015) study provides more insight into the type of government support necessary for entrepreneurial development, providing valuable insight to policy makers and paving way for future research. Waseem, Rashid and Akbar (2021) concluded that government interventions have a positive correlation with perception about entrepreneurship opportunities and capabilities and entrepreneurial intentions.

Malebana (2017) found a significant relationship between entrepreneurial support and entrepreneurial intention, perceived behavioural control, subjective norms and entrepreneurial self-efficacy of final-year commerce students from two universities located in two of South Africa's most rural provinces. It is probable that the more government programmes are made available for students, the more they feel supported, develop a positive perception of entrepreneurship and become confident of their abilities to become entrepreneurs. Malebana (2017) argued that entrepreneurial support could act as a catalyst for entrepreneurship development by enhancing students' entrepreneurial intentions. Like Malebana (2017), Jeon (2018) emphasized the positive role of the government in promoting and developing entrepreneurship. Jeon (2018) added that through funding, incubator schemes and introduction of small business support organisations, governments have enhanced entrepreneurial interest and behaviours. Nowinski, Haddoud, Wach, Schaefer (2020) found that a positive perception of public support has an indirect positive correlation with entrepreneurial intention. Nowinski et al. (2020) findings are consistent with Malebana (2017); Jeon (2018) and Park et al. (2015) who found the positive contribution of government support to entrepreneurial development.

2.6 Gender and entrepreneurial intentions

Several researchers (Kautonen et al., 2015; Raaj & Shri, 2015; Mei et al., 2016; Wu et al., 2022) found significant differences on entrepreneurial intentions based on gender. Wu et al. (2022) found the entrepreneurial intentions of male college students to be higher than those of females. However, the authors also found out that male students scored lower than females on entrepreneurship education and attributed the results to male students' orientation with practical exercises (Wu et al., 2022). These results point to the need to create more practical opportunities for entrepreneurship students. Research conducted by GEM (Global Entrepreneurship Monitor) (2023) in 2022 revealed that across 49 economies, male TEA was above female TEA in most economies. The research results further indicated that most newly established businesses were male owned (GEM (Global Entrepreneurship Monitor),

2023). The 2022 GEM (Global Entrepreneurship Monitor) survey results confirm the various past studies that found males to be more entrepreneurially oriented and active than females.

Research results presented by Bowmaker-Falconer and Meyer (2022) on the male and female TEA rates of South Africa shows that entrepreneurship in South Africa has been male dominated from 2005 to 2021. The authors argued that availing the necessary support for women entrepreneurship would see an increase in new business ventures, jobs and income (Bowmaker-Falconer & Meyer (2022)). Issa and Tesfaye (2020) research found no significant differences on students' entrepreneurial intentions based on gender. The findings are inconsistent with those of several researchers (Kautonen et al., 2015; Raaj & Shri, 2015; Mei et al., 2016; Wu et al., 2022) however similar to Thuo, Abo and Toma (2016).

3. Research Methodology

To achieve the objectives of this study, a cross-sectional quantitative research study was conducted. According to Aliaga and Gunderson (2002:128), "quantitative research is explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics)". Like Aliaga and Gunderson (2002), several researchers (Williams, 2007; Swanson & Holton, 2015; Goertzen, 2017; Creswell, 2003) have linked quantitative research with numerical data and statistical data analysis methods while associating qualitative research with perceptions, views and stories. For this study, numerical data were collected and analysed using SPSS version 27, therefore, the study conforms to the quantitative approach description provided by Aliaga and Gunderson (2002). Creswell (2015) posited that quantitative research allows for the development of hypotheses which is tested through the collection and statistical analysis of numerical data. The three hypotheses developed for this study were tested by running T-tests and Correlation analysis on SPSS.

A sample of 278 students was selected from a population of 1000 undergraduate entrepreneurship students registered at the UKZN and DUT. Stockemer (2019) posited that quantitative research studies are popular with representative samples. Muijis (2011) argued that probability sampling methods produce representative samples than non-probability sampling methods. The researcher used simple random sampling to select a sample representative of the population of undergraduate entrepreneurship students at the two institutions.

Data were collected using a structured questionnaire which was distributed electronically through the respective universities' learning portals. Section A of the questionnaire had demographic questions which consisted of gender, students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development and their attendance of extracurricular (workshops, conferences, seminars) entrepreneurship programs offered on campus. Factor analysis and Cronbach's Alpha Coefficient were used to determine the questionnaire validity and reliability. The Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy for the scale items was .85. Kaiser (1974) recommends an acceptable KMO value of .6 and above, with values less than .6

deemed inadequate. Furthermore, KMO values between .7 to .8 are deemed good whilst values above .9 are deemed excellent (Kaiser, 1974). A Cronbach's Alpha Coefficient of .98 showed the overall reliability of the questionnaire indicating that the questionnaire had a good level of inter-item consistency and reliability. The Cronbach's Alpha Coefficients for the different dimensions of the questionnaire were .90; .91; .94; .95 and .95 further indicating the reliability of the questionnaire.

T-tests were used to determine the influence of gender and students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development on their entrepreneurial intentions. Correlation analysis was used to determine the influence of students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development on their entrepreneurial intentions.

3.1. Hypotheses

The following hypotheses were formulated for the study:

H₁: University of KwaZulu-Natal and Durban University of Technology students who attend extracurricular entrepreneurship programs (workshops, conferences, seminars) offered on campus will have higher levels of entrepreneurship intentions than those who do not.

H₂: University of KwaZulu-Natal and Durban University of Technology students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development is positively correlated to their entrepreneurship intentions.

H₃: There exist significant differences on University of KwaZulu-Natal and Durban University of Technology students' entrepreneurship intentions based on gender.

3.2. Ethics

This study was approved by the University of KwaZulu-Natal and an ethical clearance certificate with ethics number HSS/1903/018D was issued. Permission letters were obtained from the University of KwaZulu-Natal (UKZN) and Durban University of Technology (DUT). Students' voluntary participation in the research study was encouraged and informed consent letters were signed prior to participation. Students' personal information was treated with confidentiality, and it was not divulged to any third parties. The collected data remain restricted to the researchers and will be destroyed after a period of 5 years.

4. Results and Findings

4.1 Sample Characteristics

Table 1 shows the sample distribution by demographic characteristics. 51% of the sample were females whilst 49% were males. The majority of the sample (76%) was from the 16-25 years age category whilst 22% were from the 26-35 years category. Most students belonged to the Indian race

group (49%) whilst 44% belonged to the African race. The majority of the students were from UKZN whilst only 12% was from DUT. Most students (79%) were doing 3rd year at the time of study whilst only 5% were doing 1st year. 53% of the students were registered for an entrepreneurship course because it was a pre-requisite module whilst 7% registered to improve their entrepreneurial knowledge. 43% of the students' parents were employed in the private sector whilst 12% were self-employed. The majority of the students were studying towards the Bachelor of Commerce degree (58.9%) and 19.3% were studying towards the Bachelor of Social Science degree. Most of the students (10.7%) had Accounting as their major whilst 6.1% and 5.1% had Business Administration and Management as their majors.

Table 1: Sample Characteristics.

Characteristic	Result
Gender	Male: 49% Female: 51%
Age	16-25 years: 76% 26-35 years: 22% 36-45 years: 2%
Race	African: 44% Indian: 49% White: 4% Coloured: 3%
Institution of Study	UKZN: 88% DUT: 12%
Level of Study	1 st year: 5% 2 nd year: 16% 3 rd year: 79%
Reason for choosing entrepreneurship modules/s	Pre-requisite module: 53% Interested in entrepreneurship: 23% Improve entrepreneurship knowledge: 7% Recommended by a friend: 12% It is a major: 5%
Head parent's occupation	Private sector employee: 43% Self-employed: 12% Unemployed: 27% Public sector employee: 18%

Table 2: Attendance of extra-curricular activities and Entrepreneurial Intentions Group Statistics

	Extra-Curricular Activities	N	Mean	Std. Dev	Std. Error Mean
EI	Yes	70	59.44	15.603	1.865
	No	120	52.53	16.654	1.520

According to Table 2, results from the Independent Samples T-test analysis showed significant differences on entrepreneurial intentions of students who attend extra-curricular activities ($M = 59.44$, $SD = 15.603$) and those who do not ($M=52.53$, $SD= 16.654$); $t(188) = 2.823$, $p = .005$, two-tailed. Based on these results, the alternative hypothesis was accepted, and the null hypothesis rejected. The statistical significance ($p=.005$) was less than 0.05. The findings imply that students who attend entrepreneurship workshops, seminars or training programs would be more entrepreneurial and interested in becoming or pursuing careers in entrepreneurship.

The findings of this study are consistent with Issa and Tesfaye (2020); Li et al. (2021); Cui and Bell (2022) and Maharana and Chaudhury (2022). The findings support the need to combine theory and practice in entrepreneurship education for effective entrepreneurship development amongst students and graduates. Saptono, Wibowo, Widyastuti, Narmaditya and Yanto (2021) found a positive correlation between an outdoor learning environment, entrepreneurship education and entrepreneurial self-efficacy. The researchers propose non-routine entrepreneurship learning programmes such as off-campus business conventions, local and international entrepreneurship seminars and site visits. This is supported by Cavalcante et al. (2021) who proposed entrepreneurship students' exposure to real-life entrepreneurship scenarios. For this reason, the researchers propose that students be exposed to presentations by successful entrepreneurs and case studies of popular brands and companies such as Amazon, Meta, Netflix, Twitter and Coca-Cola.

The findings of this study are however inconsistent with Arranz et al. (2016) who argued that extra-curricular entrepreneurship activities reduce students' entrepreneurial intention and capacity. These findings are inconsistent with the researchers who argued that extra-curricular activities prepare students for entrepreneurship as they create platforms for them to both learn and practice entrepreneurship.

Table 3: Gender and Entrepreneurial Intentions Group Statistics

	Extra-Curricular Activities	N	Mean	Std. Dev	Std. Error Mean
EI	Female	96	55.45	17.602	1.796
	Male	94	54.70	15.583	1.603

According to Table 3, results from the independent samples t-test showed no significant differences between female (M = 55.45, SD= 17.602) and male students' entrepreneurship intentions (M = 54.70, SD = 15.538); $t(188) = .112, p = .76$, two-tailed). The findings indicated that gender is not a good predictor of entrepreneurial intentions as both females and males show the same characteristics. The statistical significance ($p = .76$) was greater than 0.05 therefore the alternative hypothesis was rejected. Based on these findings, the null hypothesis was accepted.

The findings of this study are inconsistent with several research findings (Kautonen et al., 2015; Raaj & Shri, 2015; Mei et al., 2016; Wu et al., 2022). Wu et al. (2022) found higher entrepreneurial intentions in male students compared to females. In addition, Bowmaker-Falconer and Meyer (2022) indicated consistently higher TEA rates for South African males from 2005 to 2021. Moreover, GEM (Global Entrepreneurship Monitor) (2023) through a survey conducted in 2022 confirmed higher TEA rates for men in most countries. These findings suggest the need for strategies that seek to promote women entrepreneurship and reduce the aftermaths of gender inequality. Entrepreneurial support and resources should be equally awarded to both males and females.

Table 4: Awareness of government bodies and Entrepreneurial intentions Correlations

		GPB	EI
Government/Private Bodies	Pearson Correlation	1	-.220**
	Sig. (2-tailed)		.002
	N		190
Entrepreneurship Intention	Pearson Correlation	-.220**	1
	Sig. (2-tailed)	.002	
	N	190	

According to Table 4, results from correlation analysis showed a significant negative correlation ($r = -.22$, $p \leq 0.01$) between students' awareness of government bodies or private organisations that support entrepreneurship and their entrepreneurship intentions. However, the results of the analysis indicated a weak ($r = -.22$) and negative correlation between the two variables. In the case of this study, higher values in students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development indicated that they do not know about them as Yes is coded as 1 and No coded as 2. Therefore, students' awareness of any government bodies/programs or private organisations that support entrepreneurial or small business development result in an increase of their entrepreneurship intentions. The statistical significance of the analysis ($p = .00$) was less than 0.05 therefore the alternative hypothesis was accepted. Based on these findings, the null hypothesis was rejected.

These findings are consistent with several research (Park et al., 2015; Malebana, 2017; Jeon, 2018; Nowinski, 2020). Effort must be made to make available and educate students on the availability of government and private programs that support small businesses and the development of entrepreneurship. In a study conducted by Malebana (2017), the findings indicated that South African students had very little knowledge and poor access to information about government support initiatives towards entrepreneurship. Like Malebana (2017), Omotosho et al. (2022) purported that South African students are not knowledgeable about government programmes that support entrepreneurship development. Some students might have brilliant ideas that can be turned into viable business but without capital or finances they might lose hope of pursuing the idea. This information must be made available to students during lectures, workshops, seminars and entrepreneurship programmes.

5. Managerial Implications

The findings of this study provide valuable insights to educational institutions, both school and post-school institutions, policy makers and government institutions. The findings revealed a significant positive influence of extra-curricular activities on students' entrepreneurial intentions, consistent with the findings of several studies (Issa & Tesfaye, 2020; Li et al., 2021; Cui & Bell, 2022; Maharana & Chaudhury, 2022). Based on these research findings, the researchers propose the review and redesign of entrepreneurship education curriculum implementing improvements based on identified inefficiencies where applicable. Attention is drawn to Kirby's (2004) theory which argued that entrepreneurship education teaches students *about* entrepreneurship not *for* entrepreneurship. Entrepreneurship education curriculum developers may need to combine targeted extra-curricular entrepreneurship activities with theory to prepare students for entrepreneurship. Similarly, Professor Dr Chris Friedrich, a Professor at the School of Business and Finance, University of the Western Cape (UWC) emphasised the distinction between entrepreneurship education and business management. He

argued that entrepreneurship education should focus on innovation, personal initiative, achievement orientation and risk-taking (Friedrich, 2017).

Entrepreneurship education curriculum developers should incorporate more interactive and experience-based teaching and learning approaches. This is supported by Ratten and Usmanij (2021) who argued that entrepreneurship education is highly dependent on experience-based learning and has a good connection with the industry. University entrepreneurship education students should actively engage in activities such as business plan competitions, students' business exhibitions, weekly student entrepreneurs' workshops and training seminars and local and international entrepreneurship conferences. Through their active participation, it is probable these activities would stimulate students' interest in entrepreneurship. In addition, entrepreneurship lecturers may invite guest speakers and incorporate local case studies in their curriculum. However, it is essential that lecturers receive adequate training or industry experience be considered when recruiting entrepreneurship lecturers. Guest speakers allow for learning through inculturation, students would have access to stories of both success and failure shared by entrepreneurs. In addition, local entrepreneurs would provide mentoring and coaching opportunities to student entrepreneurs to allow for hands-on learning. Omotosho et al. (2022) emphasised the importance of university skills acquisition centres, entrepreneurship mentors and role models and entrepreneurial networks.

University management and entrepreneurship curriculum developers may invest in establishing and maintaining a sound entrepreneurial ecosystem. The entrepreneurial university, a model developed by Streeter, Jaquette and Hovis (2002) proposed an integration of teaching, research and extra-curricular activities in entrepreneurship education and the involvement of both internal and external (mentors, invited speakers, corporations, partnerships with organisations, community) stakeholders. For this reason, university leadership and curriculum developers should establish partnerships with business practitioners and local entrepreneurs, organisations that support entrepreneurship, local communities, the government and the rest of the world at large. Both local and international entrepreneurship educators' networks should be established to provide targeted training and development opportunities for educators to enhance their skills and capabilities in areas identified as crucial to the development of entrepreneurship.

Although the findings of this study indicated no significant differences in entrepreneurial intentions based on gender, they are inconsistent with several research (Kautonen et al., 2015; Raaj & Shri, 2015; Mei et al., 2016; Wu et al., 2022) which found males to be entrepreneurially oriented and active than females. A study conducted by GEM (Global Entrepreneurship Monitor) (2023) in 2022 revealed that in most countries, male TEA rate is higher than that of females. It is probable that persistent gender inequalities continue to create major differences in opportunities to start and operate businesses. These findings call for policy makers and other interested stakeholders to recognize the specific needs of women in entrepreneurship. Women should receive preferential entrepreneurship support and

recognition. Educational institutions, the government and communities may leverage incentives specifically targeted for women entrepreneurship.

Programmes to conscientize females about entrepreneurship should be leveraged at a younger age and there should be an increase in the number of business associations devoted to women. Women entrepreneurs should have access to organisations such as the International Labour Organisation Women's Entrepreneurship Development Programme (ILO-WED), Women Entrepreneurship for Africa (WE4A), Women Entrepreneurship 4 Good, Women Entrepreneurs Finance Initiative (We-Fi) and the South African Women Entrepreneurs Network (SAWEN). Educational institutions may establish incubators and seminars that seek to support women entrepreneurship. Women organisations may implement measures to raise awareness of women entrepreneurship issues with government institutions and other interested stakeholders.

The findings of this study indicated a positive correlation between students' awareness of government bodies/programs or private organisations that support entrepreneurial or small business development and their entrepreneurial intentions. The findings are consistent with several research (Park et al., 2015; Malebana, 2017; Jeon, 2018; Nowinski, 2020) that support government involvement in entrepreneurship development. Based on these findings, there is need for the government to intensify their involvement in entrepreneurship development. Both government and private organisations that support entrepreneurs should be accessible to everyone interested in entrepreneurship. In South Africa, institutions such as the South African Institute for Entrepreneurship (SAIE), Entrepreneurship Development Academy (EDA), Small Enterprise Development Agency (SEDA) and the National Youth Development Agency (NYDA) may conduct campaigns to promote entrepreneurship, sponsor competitions and awards to publicly recognize entrepreneurs, participate in global entrepreneurship awareness initiatives such as Global Entrepreneurship Week and support networks of entrepreneurs, researchers and higher education institutions.

The South African Entrepreneurial Framework Conditions highlight the government inefficiencies in supporting entrepreneurship development: access to finance for entrepreneurs scored 3.4/10 whilst government entrepreneurial programmes scored 3.1/10 (Bowmaker-Falconer & Meyer, 2022). Policy makers may need to increase the budget allocated for entrepreneurship development, government loans and other non-financial aid be made available and easily accessible to young entrepreneurs. Furthermore, the government should establish networks and leverage support for entrepreneurship researchers, scholars, educators and higher education institutions at large. More focus should be on the previously marginalised and disadvantaged groups. Malebana (2017) found that students in rural South African institutions lacked information on the available government support for entrepreneurs, pointing to the need to actively involve them in various support programmes.

6. Conclusions, Limitations and Future Research

This study sought to investigate the influence of gender, extra-curricular entrepreneurship activities and government support on two South African university students' entrepreneurial intentions. The findings indicated the positive influence of extra-curricular entrepreneurial activities on students' entrepreneurial intentions. The findings were consistent with several research studies (Issa & Tesfaye, 2020; Li et al., 2021; Cui & Bell, 2022; Maharana & Chaudhury, 2022) which found a positive correlation between extra-curricular activities and students' entrepreneurial intentions. However, the findings were inconsistent with Arranz et al. (2016) who found that extra-curricular activities lower students' entrepreneurial intentions and capacity. Ratten and Usmanij (2021) argued that entrepreneurship education is highly dependent on experience-based learning and has a good connection with the industry. The researchers recommended the integration of extra-curricular activities such as business plan competitions, students' entrepreneurship week, entrepreneurship workshops and seminars by recognized entrepreneurs and industry experts.

The findings further indicated a positive correlation between government support and entrepreneurial activities. The findings were consistent with Park et al. (2015); Malebana (2017); Jeon (2018) and Nowinski (2020). The researchers proposed that government agencies conduct entrepreneurship awareness campaigns and establish connections with researchers, scholars, educators and higher education institutions at large. Malebana (2017) found that students from rural South African institutions had little awareness and low access to government support programmes, therefore, the researchers proposed the establishment or updating of forums that communicate information on government entrepreneurship support initiatives. This study adds to the existing body of literature on entrepreneurship education and entrepreneurial intentions. It provides insight into the determinants of students' entrepreneurial intentions and informs policy makers, entrepreneurship curriculum developers, educators, researchers and higher education institutions at large on interventions specifically targeted at promoting entrepreneurial intentions and behaviours.

The study was conducted in two South African universities in Durban limiting the research population and extent to which data could be collected. A quantitative research approach was adopted for the study which only allowed for the collection of numerical data. Students' perceptions, opinions and verbal expressions could not be adequately captured; therefore, mixed-method research could have been ideal. Future research may adopt a longitudinal study to measure students' entrepreneurial intentions before and after interventions.

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