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Factors determining the entrepreneurship intention of university students in South Africa

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ABSTRACT

The purpose of this study is to determine the factors influencing the entrepreneurship intention of students at a distance learning institution in South Africa. An online survey was conducted among students registered at a distance learning institution, and the results confirmed that factors affecting entrepreneurship intention are entrepreneurship education and self-efficacy. Self-efficacy has a stronger effect on entrepreneurship intention than entrepreneurship education. Other factors, namely work readiness, career education and entrepreneurship orientation, did not display such a relationship with entrepreneurship intention, which implies that they do not affect students' entrepreneurship intention. Universities must make it compulsory for students to study entrepreneurship education by making it a focus of their curriculum design. They must find a way to motivate students to take up entrepreneurship as a career.

Contribution/Originality: Most previous studies on entrepreneurship education ignore the perspectives of distance learning universities. This study contributes to existing literature by investigating students from a distance learning university, as the nature of entrepreneurship education varies across higher education institutions.

1. INTRODUCTION

The South African economy is unable to produce job opportunities for its youth (Chimucheka, 2014). However, statistics on the rate of employment in the country differ. StatsSA (2022) reports an unemployment rate of 65% among the youth. Higher education institutions (HEIs) have been increasing the enrolment numbers of students entering their first year of study, yet the issue of the high unemployment rate among graduates has not been addressed (Mashau, Fields, & Nyawo, 2019). Employment sectors cannot absorb all graduates, leaving a proportion of them unemployed. This implies that the increasing enrolment rate might lead to a higher unemployment rate if graduate employability through entrepreneurship is not addressed. HEIs in South Africa have been criticized for not producing employable graduates (Msuya, 2023), but the issue of graduate employability among the youth is not the sole responsibility of HEIs (Steurer, Van der Vaart, & Rothmann, 2023). Existing studies argue for the involvement of industry, communities and other relevant stakeholders in designing and offering curricula that will produce employable graduates (Cheng, Adekola, Albia, & Cai, 2022; Manwaring, Holloway, & Coffey, 2020). This has been happening for some time. For example, HEIs have been establishing industry advisory committees to advise on curriculum design that addresses industry needs, yet unemployment among the youth remains consistently high (Msuya, 2023). South Africa produces more graduates than industry can absorb, creating high

unemployment among graduates (HSRC, 2023). Entrepreneurship education (EE) has been singled out as a mechanism for reducing the high unemployment rate in South Africa (Du Toit & Kempen, 2020; Ramchander, 2019). EE is widely supported because it plays an important role in the development of entrepreneurship intention (EI), economic growth and business startups (Nabi & Liñán, 2011; Nabi, Walmsley, Liñán, Akhtar, & Neame, 2018). Various other studies have proven that entrepreneurship education is needed for economic growth (Li & Wu, 2019) since it leads to job creation through entrepreneurship (Uddin et al., 2022). There is a plethora of initiatives among South African HEIs, including the development of curricula at different levels of study to include entrepreneurship education (Ramchander, 2019). The nature of entrepreneurship education varies across HEIs. Some HEIs involve students in projects linked to courses/subjects that include both theory and practice (Ginanjar, 2016) while others actively involve students in establishing their own businesses (Chimucheka, 2014; Rahim, Abidin, Mohtar, & Ramli, 2015; Rasmussen, Moberg, & Revsbech, 2015). Other studies note that entrepreneurship education is offered infrequently and in isolated subjects (Du Toit, 2016; Du Toit & Kempen, 2018). Du Toit and Kempen (2018) state that entrepreneurship education must be structured in such a way that it can contribute to the solution of the social and economic ills that South Africa is facing. A study by Ramchander (2019) found that HEIs pay little attention to the teaching of skills needed for entrepreneurship development. This study determines whether the entrepreneurship activities performed at the university affect graduates' entrepreneurship intention. Sampene, Li, Khan, Agyeman, and Opoku (2023) argue that entrepreneurship education can be used to improve the entrepreneurship skills, knowledge and attitudes of students. This is necessary to ensure that entrepreneurship education is offered in a way that motivates graduates to establish their own businesses and become entrepreneurs. Existing studies differ in the definition of entrepreneurship education.

However, researchers agree on the importance of preparing graduates for employability through entrepreneurship education (Ncube, 2022). Du Toit and Kempen (2020) supported by Ramchander (2019) argue that curriculum design for entrepreneurship education should be aimed at developing students' entrepreneurship knowledge, skills, characteristics and mindsets. Liñán (2004) defines entrepreneurship education as a training activity aimed at developing participants' entrepreneurship intention. The European Commission's definition of entrepreneurship education has been adopted, which states that entrepreneurship education is a process that allows learners to acquire a broad set of competencies resulting in the production of individual, social and economic benefits (European Commission, 2012).The recent efforts of the Department of Higher Education and Training (DHET) to promote student entrepreneurship development in higher education (EDHE) in South Africa were made because it had become clear that entrepreneurship education would be necessary not only to improve graduate employability, but also for economic development. The EDHE project was launched to generate interest in entrepreneurship among South African university students and to create a platform for students to participate in entrepreneurship. Ncube (2022) studied entrepreneurship education and its effectiveness in South Africa, as well as the competencies needed to establish a successful business.

The findings revealed that educators lacked the skills to prepare graduates for entrepreneurship. This study will fill a knowledge gap by determining which factors influence the entrepreneurship intention of students at a South African university. Radebe and Vezi-Magigaba (2020) state that South African universities promote white-collar jobs and focus less on entrepreneurship. In the light of the high unemployment rate among the youth in the country, universities must re-examine the role they play to ensure that graduates are employable – the very reason this study was conducted.

2. LITERATURE REVIEW

2.1. The Grounding Theory

The Theory of Planned Behavior (TPB) was formulated by Ajzen (1991) and has been widely applied in various subject areas, including education, health and social sciences. Various studies have validated the TPB as applicable

and relevant in predicting entrepreneurship intention (Dao et al., 2021; Gorgievski, Stephan, Laguna, & Moriano, 2018; Schlaegel & Koenig, 2014). TPB is premised on the belief that any amount of intended behavior requires planning (Tran & Von Korflesch, 2016). In this case, the intention to establish a business or to become involved in entrepreneurship is considered an intentional process that is determined by various factors (Krueger & Carsrud, 1993). Ozaralli and Rivenburgh (2016) propose that universities should seek to understand and analyze entrepreneurship intention (EI) to generate deeper knowledge of the entrepreneurship process. Studies that adopted the TPB applied the TPB variables, including attitude, subject norms and behavior, to test student entrepreneurship intention (Duong, 2022). Other studies tested other factors using the TPB model, as Liñán and Fayolle (2015) argue that other antecedents for entrepreneurship intention should be tested. Anjum, Amoozegar, Farrukh, and Heidler (2023) also state the need to identify the various factors and attributes that promote the development of entrepreneurship intention. This is supported by Hassan, Anwar, Saleem, Baharul Islam, and Hussain (2021), who confirm that entrepreneurship motivations have a significant effect on entrepreneurship intention. The study by Liguori, Winkler, Vanevenhoven, Winkel, and James (2020) reported the importance of prior entrepreneurship exposure and providing social support mechanisms to students for the formation of entrepreneurship intention. Nagarathanam and Buang (2016) applied the model to test whether students consider entrepreneurship as career choice.

2.2. Entrepreneurship Intention

Existing studies provide many definitions of entrepreneurship intention. According to Reddy, Vinay, and Venkateswarlu (2019), entrepreneurship intention refers to the willingness and desire of an individual to establish a business, and that the individual possesses the instinct to become an entrepreneur. In other studies, entrepreneurship intention is referred to as the intention of an individual to establish a business (Crant, 1996) and to be self-employed (Douglas & Shepherd, 2002). It has been proven that entrepreneurship intention has a significant effect on one's behavior (Tsou, Steel, & Osiyevskyy, 2023). Thompson (2009) further stated that entrepreneurship intention involves the desire to engage in entrepreneurship activities in the near future. According to Ajzen (1991), entrepreneurship intention involves one's willingness to perform the desired behavior, implying that students must have the desire to be self-employed by starting a business (Karimi, Biemans, Lans, Chizari, & Mulder, 2016). As confirmed by Ndofirepi (2020) entrepreneurship education equips participants with entrepreneurial competencies and skills to encourage entrepreneurship intention. Karimi et al. (2016) and Kautonen, Hatak, Kibler, and Wainwright (2015) state that the intention of students to engage in entrepreneurship drives the creation of enterprises. Empirical evidence has shown that certain factors affect students' intention to take up entrepreneurship as a career (Faloye & Olatunji, 2018; Indarti & Rostiani, 2008; Liñán, 2004). Ntshangase and Ezeuduji (2023) support this assertion, stating that entrepreneurship intention is influenced by various factors, including individuals' background and how entrepreneurship education is structured and presented. Wu et al. (2022) studied the effect of EE and self-efficacy (SE) on EI and report a positive and significant relationship. Various other factors that have been identified in entrepreneurship education research are summarized in Table 1.

The table supports the assertion that various factors influence student intention. Ramchander (2019) notes that little attention is paid to the development of entrepreneurial skills. This study investigates work readiness, career education, entrepreneurship education, self-efficacy and entrepreneurship orientation, as well as their effect on students' entrepreneurship intention. Most studies investigating the predictors of entrepreneurship intention focus on EE and SE. This study adopts these factors, but also adds entrepreneurship orientation, career education and work readiness as predictors for entrepreneurship education. Career education plays an important role in creating awareness of the available career options (which may include entrepreneurship) and this is why it is investigated in this study. Work readiness is also important and is considered in this study because students who are not ready for

employment may not be successful in securing employment, whether it be corporate employment or self-employment by way of entrepreneurship.

Table 1. Factors influencing entrepreneurship education.

Authors	Factors
Vanlalhriati, Sharma, and Vanlalkulhpuia (2022)	Entrepreneurship attitude; entrepreneurship self-efficacy; entrepreneurship education
Wu et al. (2022)	Entrepreneurship education; entrepreneurship self-efficacy
Zhang, Li, Zeng, Zhang, and Lu (2022)	Entrepreneurship education; national context differences; gender; education level
Hassan et al. (2021)	Individual entrepreneurship orientation, entrepreneurship education; entrepreneurship motivations
Hoang, Le, Tran, and Du (2020)	Entrepreneurship education; learning orientation; self-efficacy

2.3. Work Readiness Preparation and Entrepreneurship Intention

According to Putra, Sutadji, and Nurhadi (2021) readiness is a condition for someone to be able to do what they plan; it involves preparing people for and ensuring a positive attitude toward certain situations. Hayes, Freudenberg, and Delaney (2022) state that work readiness refers to students' awareness of their skills and their belief that they are employable. According to Ruiz, Ribeiro, and Coduras (2016) entrepreneurial readiness consists of a set of personal attributes or traits.

Ruiz et al. (2016) state that work readiness helps to distinguish an individual from others based on their readiness to be involved in entrepreneurship. Such individuals must possess the competency to observe and analyze the relevant environment to identify market gaps and create business ideas. Furthermore, these individuals should be able to use their potential and deploy their capability, and they should have the need for self-achievement (Ruiz et al., 2016).

For graduates to be absorbed into the world of work, and especially entrepreneurship, they require certain skills (Baiti, Abdullah, & Rochwidowati, 2017). Some studies refer to the personal traits that characterize employable graduates and the resilience to find a job and keep it (Utami, 2013). Coduras, Saiz-Alvarez, and Ruiz (2016) state that work readiness involves essential traits, such as personal/family-based characteristics, an economic/entrepreneurship background and a set of appropriate psychological traits.

Putra et al. (2021) assert that graduates must be successfully prepared and must have acquired certain skills to overcome challenges and survive in the workplace. Work readiness is what helps students to transition smoothly from academia to the workplace. Zaini, Zaini, and Turner (2023) confirm that university programmes can improve students' capabilities, skills and knowledge to ensure that they are work ready but that their work readiness is not the sole responsibility of the university – students must also take responsibility for enhancing their own skills. Students can gain the necessary skills and competencies through education to ensure that they are ready to work; however, their entrepreneurship attitude will determine how prepared they are for entrepreneurship (Solfema, Wahid, & Pamungkas, 2019).

As stated by Iyortsuun, Goyit, and Dakung (2021) educational programmes must be designed to influence students and steer them toward entrepreneurship activities. Students can develop entrepreneurship mindsets, knowledge and skills (Baskaran, Mahadi, & Abdul Rasid, 2020; Hassan, Sade, & Rahman, 2020; Jayabalan, Nair, Kadiresan, Nadarajan, & Selvanathan, 2020) when curriculum activities are appropriately chosen to create entrepreneurship interest among students (Shamsudin, Mamun, Nawi, Nasir, & Zakaria, 2017).

H1: Work readiness has a significant and positive effect on students' entrepreneurship intention.

2.4. The Influence of Entrepreneurship Education on Entrepreneurship Intention

Neck and Corbett (2018) state that the role of entrepreneurship education is to develop the mindset, skill set and practice that students require to become involved in entrepreneurship. EE can be achieved through different pedagogics, including learning about entrepreneurship theoretically and practically by means of experiential learning that engages students with entrepreneurship practice (Neck & Greene, 2011). As stated by Longva (2019) entrepreneurship education creates a space for students to reflect on their careers, which in turn helps them to learn more about themselves and their ability to be entrepreneurs and take up entrepreneurship as a career.

Ample evidence had been provided by existing studies of the relationship between students' entrepreneurship education and entrepreneurship intention (Hou, Su, Lu, & Qi, 2019; Mei, Lee, & Xiang, 2020; J. Zhang & Huang, 2021). Entrepreneurship education promotes business start-ups and provides opportunities for students to gain the necessary knowledge and skills needed to establish their own business enterprises. Cui and Bell (2022) argue that entrepreneurship education can be used to promote students' start-ups since it imparts the essential knowledge and skills that graduates need to establish their own ventures, which in turn results in higher entrepreneurship intention (Cui & Bell, 2022; Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019).

Interestingly, existing studies also conclude the opposite – that entrepreneurship education does not promote students' entrepreneurship intention (Kusumojanto, Wibowo, Kustiandi, & Narmaditya, 2021). Although Souitaris, Zerbinati, and Al-Lahamet (2007) conclude that entrepreneurship courses and training enhance students' entrepreneurship intention, Lv et al. (2021) report that entrepreneurship intention is not improved through the teaching of entrepreneurship education despite its ability to improve students' knowledge and abilities. Anwar and Saleem (2019) supported by Shirokova, Osiyevskyy, Morris, and Bogatyreva (2017) proved that entrepreneurship courses and related extracurricular activities do not have a similar impact on students' propensity to become entrepreneurs. Other scholars further report that entrepreneurship education reduces students' intentions to embark on entrepreneurship careers (Fayolle & Gailly, 2015).

Research on the impact that entrepreneurship education has on entrepreneurship intention has reported positive and significant impacts (Cui, 2021; Ndofirepi, 2020; Wu et al., 2022; Yasa et al., 2023; Zhang et al., 2022). However, other studies have reported the opposite effect, that entrepreneurship education does not significantly influence entrepreneurship intention (Duong, 2022; Lv et al., 2021). Matsheke and Dhurup (2017) argue that entrepreneurship education increases students' responsiveness to entrepreneurship and can increase their intention to take it up as a career.

H2: Entrepreneurship education has a significant and positive influence on students' entrepreneurship intention.

2.5. Career Education and Entrepreneurship Intention

Katz (1992) defines career choice as an individual's decision on whether to enter a waged or salaried occupation or to become self-employed. Bridgstock, Grant-Iramu, and McAlpine (2019) and Jackson and Tomlinson (2020) describe career education as education that gives students information, advice and guidance on possible careers they can pursue. The authors also state that career education is a strategy used to prepare students for employment by helping them to acquire skills such as resilience, adaptability, flexibility and self-efficacy, which they will need to cope in the workplace. People who want to inspire others to become entrepreneurs also need these skills. Students will only choose an entrepreneurial career if they have been exposed to entrepreneurship and have prior entrepreneurship experience (Burton, Sørensen, & Dobrev, 2016; Unger, Rauch, Frese, & Rosenbusch, 2011; Zapkau, Schwens, & Kabst, 2017).

Career education or career development trains students to reflect on their personal capacities and motivations (Akkermans, Brenninkmeijer, Huibers, Roland, & Blonk, 2012). Students can develop their career through a process of exploring the career, showing commitment to a career, and career reconsideration (Porfeli & Lee, 2012). Career

education helps students to reflect on their careers, which leads them to commit to entrepreneurship (Porfeli & Lee, 2012).

Pitan and Muller (2023) indicate that students in South Africa are not adequately engaged in career education and that this will render them unemployable. This applies more to students from disadvantaged backgrounds who are studying at less reputable universities (Walker & Fongwa, 2017). The integration of career education into the curriculum leads to the development of the skills that students require to become employable or follow an entrepreneurial career (Bridgstock et al., 2019; Bridgstock & Jackson, 2019).

Universities must involve students in career development as part of developing their employability skills, knowledge and experience (Jackson & Dean, 2023). This requires universities to teach students about the different career options, tools and possibilities (Bridgstock, 2009), any of which might involve a career option in entrepreneurship. According to Rodriguez and Lieber (2020) entrepreneurship education creates entrepreneurship mindsets among students and equips them with the ability to communicate, collaborate, identify opportunities, think critically and solve problems. Hirschi and Fischer (2013) agree, stating that the attitudes and perceptions of individuals, in this case students, have the ability to influence their decision to take up entrepreneurship as a career choice.

A study by Hu, Liu, Tian, Zhang, and Mao (2022) proves that educational background significantly and positively influences entrepreneurship intention. Hu et al. (2022) support the effect of career development on entrepreneurship intention. Cui and Bell (2022) agree, stating that students attending career education might regard entrepreneurship as a career choice, thus motivating them to engage in entrepreneurship.

H3: Career education has a significant and positive effect on students' entrepreneurship intention.

2.6. Entrepreneurship Orientation and Entrepreneurship Intention

Entrepreneurship orientation (EO) refers to the process of gaining entrepreneurship knowledge, which raises awareness and deepens the understanding of entrepreneurship (Ikpesu, 2016). EO is a multi-dimensional construct at both individual and firm levels involving different attributes, including proactiveness, innovativeness and disposition to risk (Ismail et al., 2015) which means that anyone who intends to establish a business must have these attributes. Fostering entrepreneurship activities successfully in an economy requires entrepreneurship orientation. Individuals, in this case students, must have the capacity, competence and willingness to become entrepreneurs (Taatila & Down, 2012). It is believed that EO experiential learning can develop EO (Sahoo & Panda, 2019). EO is an important aspect of what is needed to foster entrepreneurship behavior (Ismail et al., 2015), and entrepreneurship education is needed to foster EO (Davey, Hannon, & Penaluna, 2016).

Entrepreneurship orientation has been found to significantly influence entrepreneurship intention (Ibrahim & Lucky, 2014). Other studies support this effect of entrepreneurship orientation on entrepreneurship intention (Aggarwal & Chauhan, 2022; Ekpe & Mat, 2012). The relationship between entrepreneurship orientation and entrepreneurship intention is further confirmed by Marques, Santos, Galvão, Mascarenhas, and Justino (2018); Galvão, Marques, and Ferreira (2020); Naveed, Zia, Younis, and Shah (2021) and Coetzee, Ferreira, and Potgieter (2019) who found that entrepreneurship orientation influences students' willingness to find or create a job. Hassan et al. (2021) agree that entrepreneurship orientation positively and significantly affects entrepreneurship intention.

H4: Entrepreneurship orientation has a significant and positive relationship with entrepreneurship intention.

2.7. The Effect of Self-Efficacy on Entrepreneurship Intention

Self-efficacy refers to the confidence with which one builds the capabilities to implement or perform an activity (Nikou, Brush, & Wraae, 2023). One must believe in one's ability to perform a certain function and follow the necessary steps to achieve a goal (Stets & Burke, 2000). Self-efficacy determines a potential entrepreneur's ability to

handle and overcome the challenges and obstacles that influence entrepreneurship intention (Liu, Lin, Zhao, & Zhao, 2019).

The effect of self-efficacy on entrepreneurship intention has been the subject of investigation for some time. However, the need for graduate employability calls for more research on the subject to keep up to date with changes in the labor market. Self-efficacy refers to the confidence that students might have in their own capabilities (Audia, Locke, & Smith, 2000) and helps them to persevere regardless of any setback they might face during the entrepreneurship process (Liu et al., 2019; Shane, Locke, & Collins, 2004). Self-efficacy serves as motivation to act and, in this case, as a motivation to become an entrepreneur (Bénabou & Tirole, 2002). It is considered a vital skill and can lead to success (Vanlalhriati et al., 2022). Entrepreneurship education increases an individual's confidence as their skills improve, their horizons broaden, their beliefs deepen and eventually their self-efficacy improves (Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2011).

The effect of self-efficacy on entrepreneurship intention is well supported in literature (Cui, 2021). Wu et al. (2022) also support the impact of entrepreneurship self-efficacy on entrepreneurship intention. Studies by Mei et al., (2020) and Wardana et al., (2020) provide evidence of the mediation effect of self-efficacy on the relationship between entrepreneurship education and entrepreneurship intention. Ferreira, Loiola, & Gondim, (2017) provide contradicting findings that self-efficacy has a significant impact on entrepreneurship intention.

H5: Self-efficacy has a significant and positive relationship with students' entrepreneurship intention.

Figure 1 shows the conceptual model to be tested in this study to determine factors influencing entrepreneurship intention.

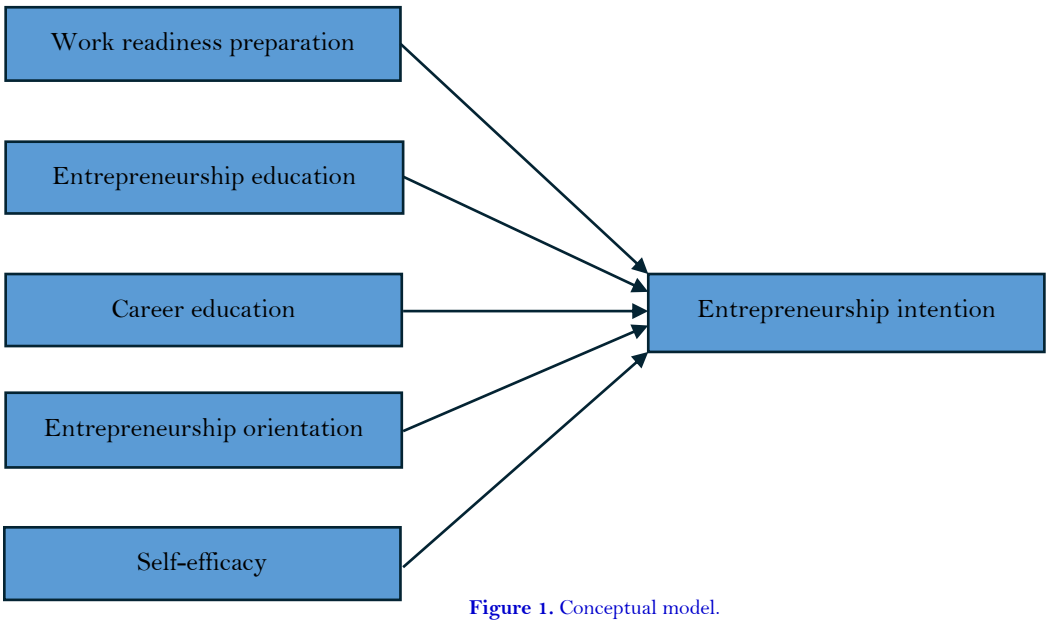

Figure 1. Conceptual model.

3. RESEARCH METHOD

3.1. Research Design

The quantitative research approach was deemed appropriate for the study, and a survey was conducted among students at a distance learning institution to determine the factors that influence their entrepreneurship intention. A survey approach was deemed important to achieve the research objectives, as supported by previous studies on the subject (Kinash, Crane, Schulz, Dowling, & Knight, 2014).

3.2. Participants

The participants in the study were undergraduate and postgraduate students in the Department of Marketing and Retail Management at the University of South Africa. The targeted university is one of the largest distance

learning institutions on the continent, with students from across the globe. More than 10,000 undergraduate and postgraduate students are enrolled in the department. The targeted students were second- and third-level undergraduate students and honors-level postgraduate students. Some of the students might not have had sufficient internet data available to complete the questionnaire online – a matter that is considered to be one of the barriers to online education in South Africa (Kanwal & Rehman, 2017). November is the main examination period for the university, while January to February is the examination period for supplementary examinations, factors that could also have had an impact on the students' responses since they were focusing on their examinations at the time.

3.3. Measuring Instrument

The measuring instrument used for data collection purposes was designed using existing literature to ensure reliability. Each of the four employability strategies was measured on a five-point Likert-type scale from 1 = Strongly Disagree to 5 = Strongly Agree, and 19 items were included in the questionnaire to measure the employability strategies used by students to prepare themselves for employment.

3.4. Procedure

An independent research company was commissioned to collect the data online after permission had been granted by the university to access certain student details for data collection purposes. Data were collected between November 1, 2020, and February 27, 2021. A university official was responsible for sharing the questionnaire link with the students, while the independent research company monitored the completion of the questionnaire and compiled the data for the researcher. Data were distributed to all second-level, third-level and honors students targeted for the study.

3.5. Ethical Consideration

Permission to conduct research targeted at students was sought from both the department (Reference number 2020_MRM_003) and the university (Reference number: 2020_RPSC_027). Students received a questionnaire with a cover letter explaining that participation in the study was voluntary and that they could withdraw from the study at any point should they wish to do so. Students were also informed that their data would be anonymous and that the results would not be associated with their personal details.

3.6. Data Analysis

The data for this study were analyzed using the Statistical Package for the Social Sciences (SPSS) version 28. The statistical analyses adopted descriptive statistics and regression analysis. The purpose of using the regression analysis was to test the above conceptual model developed for this study to determine the factors influencing entrepreneurship education.

4. RESULTS AND FINDINGS

4.1. Descriptive Information

Female students represented the majority of the target population (60%; n = 98), while male students represented 32% (n = 43). The majority of the target population consisted of younger people (n = 80; 58%), while respondents over the age of 40 accounted for 26% (n = 35). Undergraduate students were the majority and included degree students (40%; n = 54) and diploma students (18%; n = 24). Third-level students were well represented (40%; n = 53), followed by second-level students (n = 25; 19%) and postgraduates (n = 24; 18%). The respondents who were permanently employed accounted for 43% (n = 49) of the target population, followed by those who were not employed (n = 44; 39%).

4.2. Reliability and Validity

The Cronbach's alpha values for all constructs appear in Table 2. These range from 0.785 to 0.961, which is satisfactory, as recommended by Malhotra (2020). The validity of the study was determined through Pearson correlation analysis. Lang et al. (2018) state that correlations of 0.3 and above are satisfactory, which was the case in this study. The validity of the study was also ascertained by designing the questionnaire using items from previous studies.

Table 2. Correlations and reliability.

Factor	Correlation	Work readiness	Entrepreneurship education	Career education	Entrepreneurship orientation	Self- efficacy
Work readiness	Pearson correlation	--				
Entrepreneurship education	Pearson correlation	0.503**	--			
	Sig. (2-tailed)	0.000				
Career education	Pearson correlation	0.532**	0.799**	--		
	Sig. (2-tailed)	0.000	0.000			
Entrepreneurship orientation	Pearson correlation	0.491**	0.653**	0.863**	--	
	Sig. (2-tailed)	0.000	0.000	0.000		
Entrepreneurship intention	Pearson correlation	0.167	0.420**	0.304**	0.225*	--
	Sig. (2-tailed)	0.079	0.000	0.001	0.017	
Self-efficacy	Pearson correlation	0.131	0.430**	0.384**	0.315**	0.691**
	Sig. (2-tailed)	0.169	0.000	0.000	0.001	0.000
Cronbach's alpha		0.785	0.917	0.961	0.907	0.895

Note: ** $p < 0.05$, * $p < 0.1$.

4.3. Hypothesis Testing

The conceptual model developed for this study was tested using regression analysis. The model summary and analysis of variance (ANOVA) tables below show that the model is significant. The model explains 48% of the variation in the dependent variables, as shown by the adjusted R-square in Table 3.

Table 3. Model summary.

Model	R	R-squared	Adjusted R-squared	Std. error of the estimate	R-squared change	F change	df1	df2	Sig. F change
1	0.713[b]	0.508	0.485	0.537	0.326	70.151	1	106	0.000

Note: b. Predictors: (Constant), Entrepreneurship_orientation, Work_readiness_preparation, Entrepreneurship_education, Career_education, Self_efficacy.

Table 4 contains the ANOVA results for the study. It shows that the conceptual model developed for this study was significant, with a p-value of 0.001.

Table 4. ANOVA[a].

Model	Sum of squares	df	Mean square	F	Sig.
Regression	31.656	5	6.331	21,885	<0.001c
Residual	30.666	106	0.289		
Total	62.321	111			

Note: a. Dependent variable: Entrepreneurship_intention.
c. Predictors: (Constant), entrepreneurship_orientation, work_readiness _preparation, entrepreneurship_education, career_education, self_efficacy.
Df = Degrees of freedom.

Table 5 contains the hypothesis testing results and the decisions in support of or rejecting the hypotheses.

The results for H1 show that work readiness does not have a significant and positive effect on students' entrepreneurship intention, as the p-value = 0.562 ($p > 0.05$); therefore, H1 is rejected.

H2 is supported due to the significant effect of $p = 0.003$ ($p < 0.05$). Therefore, entrepreneurship education has a significant and positive influence on students' entrepreneurship intention. The β value of 0.285 shows the strong effect that entrepreneurship education has on entrepreneurship intention. Therefore, H2 is supported.

H3, which tested the relationship between career education and students' entrepreneurship intention, was rejected, as the p-value was 0.545 ($p > 0.05$).

H4, which states that entrepreneurship orientation has a significant and positive relationship with entrepreneurship intention, was rejected, as the p-value = 0.579 ($p > 0.05$).

H5, which tested the relationship between self-efficacy and students' entrepreneurship intention, was supported as $p = 0.000$ ($p > 0.05$). The β value for self-efficacy is 0.735, which shows the strongest effect on entrepreneurship intention compared with the β values of entrepreneurship education and entrepreneurship intention. H5 is therefore supported.

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Table 5. Regression analysis results.

Intention	Hypothesis	Unstandardized coefficients		Standardized coefficients	t	Sig.	95% confidence interval for B		Collinearity statistics	
		Beta coefficient β	Std error	β			Lower bound	Upper bound	Tolerance	VIF
Constant		0.555	0.496	-	1.118	0.266	-0.429	1.538	-	-
WR → EI	H_1	0.062	0.106	0.048	0.581	0.562	-0.149	0.273	0.682	1.466
EE → EI	H_2	0.285	0.134	0.255	2.136	0.035	0.020	0.550	0.326	3.064
CE → EI	H_3	-0.136	0.223	-0.105	-0.607	0.545	-0.579	0.307	0.156	6.428
EO → EI	H_4	-0.096	0.173	-0.076	-0.557	0.579	-0.440	0.247	0.249	4.016
SE → EI	H_5	0.735	0.088	0.639	8.376	0.000	0.561	0.909	0.797	0.735

Note: Dependent variable: Entrepreneurship_intention.
VIF = Variance inflation factor, t = t-test.

5. DISCUSSION

The purpose of this study was to determine which factors affect students' entrepreneurship intention. Five factors were identified and tested to determine whether they influence students' entrepreneurship intention. The work readiness of students did not have an effect on their entrepreneurship intention. This is supported by the results of previous studies that found that work readiness does not have a relationship with entrepreneurship intention. However, other studies have reported that work readiness does influence entrepreneurship intention (Iyortsuun et al., 2021). Tentama and Yusantri (2020) state that entrepreneurship intention is predicted by students' level of employability. Entrepreneurship education was reported to influence entrepreneurship intention significantly. This is not surprising, since the same effect is noted in the literature (Anjum et al., 2023; Handayati, Wulandari, Soetjipto, Wibowo, & Narmaditya, 2020; Hoang et al., 2020; Otache, Umar, Audu, & Onalo, 2021). Notably, studies have reported that entrepreneurship education does not have a relationship with entrepreneurship intention. For example, Duong (2022) reports that entrepreneurship education does not have a relationship with entrepreneurship intention, except through entrepreneurship attitude. Other researchers also support the idea that entrepreneurship education does not have an influence on entrepreneurship intention (Iwu et al., 2021; Nowiński et al., 2019). This implies that the effect of entrepreneurship education differs for different kinds of participants, which is in line with Duong (2022), who found that educational fields influence the relationship between entrepreneurship education and entrepreneurship intention. The effect of career education on entrepreneurship intention was not supported by this study. Existing studies have also proven that career education does not have an effect on entrepreneurship intention. However, Hu et al. (2022) and Cui and Bell (2022) state that career education does have an influence on entrepreneurship intention. Entrepreneurship orientation was also found to have no influence on entrepreneurship intention. Hassan et al. (2021) agree that entrepreneurship orientation does not have a direct relationship with entrepreneurship intention. However, Hoang et al. (2020) and Martins and Perez (2020) present different findings indicating that entrepreneurship orientation does influence entrepreneurship intention.

The influence of self-efficacy on entrepreneurship intention is well supported in literature and is also supported by this study. Wu et al. (2022); Nowiński et al. (2019) and Liguori et al. (2020) do not confirm the findings of this study as they report that self-efficacy does not have a direct effect on entrepreneurship intention. Li and Wu (2019) and Vanlalhriati et al. (2022) found that self-efficacy moderates the relationship between entrepreneurship education and entrepreneurship intention.

6. CONCLUSIONS

This study found that there is a direct relationship between entrepreneurship education and self-efficacy and entrepreneurship intention. Work readiness, career education and entrepreneurship education were found to have no direct relationship with entrepreneurship intention.

6.1. Theoretical Contribution

The study makes a theoretical contribution as it found that entrepreneurship education influences entrepreneurship intention. Although existing studies have reported similar findings, they did not focus on distance learning settings, which were the focus of this study. None of the existing studies focused on marketing students, as was the case in this study. The findings also prove that self-efficacy has a relationship with entrepreneurship intention. Most studies investigating this relationship fail to report a direct relationship between the two, but instead support an indirect relationship. This study thus makes a valuable contribution to the field by concluding that self-efficacy has a direct relationship with entrepreneurship intention.

This study also investigated the relationship between work readiness, career education and entrepreneurship intention, which existing studies have not considered. Although the results do not show the relationship, the study makes a contribution by showing that these factors do not have a relationship with entrepreneurship intention. This

also applies to entrepreneurship orientation, which was found to have no relationship with entrepreneurship intention – similar to the findings reported in existing literature.

6.2. Practical Recommendations

Since entrepreneurship education was found to influence entrepreneurship intention, universities should continue offering entrepreneurship education. More importantly, universities should incorporate the practical component of entrepreneurship education so that students not only learn the theory but are also involved in practicing entrepreneurship. Extant literature demonstrates the lack of entrepreneurship knowledge among educators. Therefore, universities should ensure that educators are trained to offer entrepreneurship education and invite guest lecturers with entrepreneurship experience to co-teach courses. Ramchander (2019) recommends that attention be given to the development of entrepreneurship skills such as perseverance, resilience and self-efficacy. Universities can achieve this by employing or partly involving experienced entrepreneurs in teaching entrepreneurship courses. Involving students in entrepreneurship – especially in its practical components – will help them to enhance their self-efficacy since they will gain the confidence needed to establish and run a business. Some students believe that entrepreneurship is not for them, but once they participate in practical entrepreneurship training, they might gain confidence in their abilities to run their own businesses. In South Africa, universities could ensure that they encourage their students to participate in the EDHE project and compete with students from other universities to come up with the best business ideas. Entrepreneurship should be made a compulsory university subject to introduce all students to the concept. This will help to change students' attitudes toward entrepreneurship, especially those who believe that entrepreneurship is for some people but not for them (Duong, 2022).

6.3. Implications

The results of this study show that two factors – entrepreneurship education and self-efficacy – influence entrepreneurship intention. The implication of this is that universities must ensure that entrepreneurship education becomes their central focus when curricula are designed. This could involve introducing entrepreneurship as a compulsory subject for all students or integrating entrepreneurship education into all subjects and programmes. The latter would mean that some or all subjects include an entrepreneurship project or topic. The results also imply that policymakers should support universities in offering entrepreneurship education and help them to perform in this regard. They could also ensure that universities integrate entrepreneurship education into their curricula.

7. LIMITATIONS AND FUTURE STUDIES

This study investigated the effect of entrepreneurship factors on students' entrepreneurship intention. It targeted students of one department in a single distance learning university. Future studies could target students from other departments and colleges within this university, as well as students from other universities in South Africa, to determine whether the results are similar. Studies could also target students from other universities across Africa.

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