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The mediation of self-efficacy in the effect of entrepreneurship education on the entrepreneurship intention of university students in South Africa

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ABSTRACT

The purpose of this study is to determine the role that self-efficacy plays in the relationship between entrepreneurship education factors and the entrepreneurship intention of university students in South Africa. An online survey was conducted among students registered at a distance learning institution. The results of the study confirmed that the relationship between entrepreneurship education and entrepreneurship intention is mediated by self-efficacy. Self-efficacy does not mediate the relationship between work readiness, career education, entrepreneurship orientation and entrepreneurship intention. However, there is a direct relationship between entrepreneurship education and self-efficacy. Work readiness, career education, and entrepreneurship orientation have a direct relationship with self-efficacy. Higher education institutions must not only incorporate entrepreneurship education into their curriculum, but they must also ensure that efforts are made to encourage students to believe in their ability to establish their own businesses.

Contribution/Originality: This study adds valuable findings to existing literature by investigating the mediation effect of self-efficacy on the relationship between entrepreneurship education and entrepreneurship intention among students in an open distance learning environment.

1. INTRODUCTION

Entrepreneurship plays a vital role in economic growth and promotes social change through innovations that create both job opportunities and wealth (Hathaway & Litan, 2014; Uddin et al., 2022). The study of entrepreneurship is important as it affects the long-term social and economic development of a country. South African higher education institutions have embraced entrepreneurship education as a strategy to improve graduate employability. More universities in South Africa now offer entrepreneurship studies as an integral part of science, humanities and business subjects/modules, while others still offer entrepreneurship as an extracurricular subject for interested students (Chimucheka, 2014; Ginanjar, 2016; Rahim, Abidin, Mohtar, & Ramli, 2015; Ramchander, 2019; Rasmussen, Moberg, & Jensen, 2015). One reason for this is the 36% unemployment rate among the graduate youths in South Africa. However, the uptake of entrepreneurship by youths, particularly students, is still in its infancy (Ramchander, 2019). As a result, the available entrepreneurship potential in South Africa is far from being reached (Bauman & Lucy, 2019) perhaps because students in South Africa, especially those from disadvantaged families, do not regard themselves as entrepreneurs (Urban & Richard, 2015).

Ample studies suggest that the initial step in launching a business is taken when there is entrepreneurial intention (Chinyamurindi, 2016; Elnadi & Geith, 2021). Soomro and Shah (2022) and Thompson (2009) argue that unless someone has entrepreneurial intention, it is highly unlikely that they will consider entrepreneurship as a career. The high level of unemployment among people under the age of 24 is a pressing challenge that should force this age group to consider entrepreneurship (Mago, 2018).

Self-efficacy has been singled out in many studies as important in determining entrepreneurship intentions (Wu et al., 2022). Studies have proven that self-efficacy is a key driver of students' entrepreneurship intentions, and that entrepreneurship education should assist students in developing self-efficacy, thereby building and strengthening their entrepreneurship intentions (Nikou, Brush, & Wraae, 2023). Self-efficacy plays a critical role in people's entrepreneurial intentions and whether their entrepreneurship intentions lead to entrepreneurial behavior (Wu et al., 2022).

In South Africa, the importance of student and graduate entrepreneurship is increasingly recognized. In 2016, the Department of Higher Education and Training (DHET) launched a student entrepreneurship platform, Entrepreneurship Development in Higher Education (EDHE), because it had become clear that entrepreneurship education was necessary not only for graduate employability, but also for economic development. The EDHE programme was established to create a platform for universities and students in South Africa to participate in entrepreneurship. It is not clear whether students at South African universities have the necessary self-efficacy to become involved in entrepreneurship.

This study answers the following question: Does self-efficacy play an important role in the relationship between entrepreneurial education and the entrepreneurial intention of students in South Africa? It is believed that one can gain self-efficacy, which is vital for successful entrepreneurship, through entrepreneurial education (Vanlalhriati, Sharma, & Vanlalkulhpuia, 2022). Self-efficacy increases individuals' confidence, which in turn motivates them to improve their entrepreneurship skills (Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2011).

Existing studies investigating the mediation of self-efficacy do so in the context of developed countries where broad internet access promotes self-efficacy and entrepreneurship education (Nikou et al., 2023), even in high schools (Tentama & Yusantri, 2020). South African entrepreneurship studies focus on STEM (science, technology, engineering and mathematics) students (Jegede & Nieuwenhuizen, 2021) and pay little attention to the development of entrepreneurial skills such as perseverance, resilience and self-efficacy (Ramchander, 2019).

Studies have shown that it is important to identify both internal and external factors related to entrepreneurship. Internal factors include entrepreneurial orientation and entrepreneurial capability, both of which influence students' entrepreneurial career choices (Antonioli, Nicolli, Ramaciotti, & Rizzo, 2016). Jegede and Nieuwenhuizen (2021) state that student entrepreneurial intention could be escalated by providing entrepreneurship education and entrepreneurship infrastructure. Mbuya, Diniso, and Mphahlele (2021) suggest that an entrepreneurship ecosystem should be established to encourage students to choose entrepreneurship careers. To develop an entrepreneurship ecosystem, entrepreneurship education programmes need to be developed. Such programmes have the potential to increase students' adoption of entrepreneurial careers (Kakouris & Georgiadis, 2016; Ramchander, 2019). Entrepreneurship education should be designed to develop the skills, attitudes and capabilities that students need to become successful entrepreneurs.

Unlike this study, previous studies investigating entrepreneurship self-efficacy have not considered work readiness and career education. This study is therefore unique. In order to answer the research question, the study also investigates how self-efficacy affects the relationship between these factors and entrepreneurship intention, something not previously done in the South African context. The next sections are structured to discuss the literature review. Discussions on grounding theory, entrepreneurship intention, entrepreneurship education and the conceptual model are included. The rest of the article discusses the research methodology, results, implications and conclusions of the study.

2. LITERATURE REVIEW

2.1. The Grounding Theory – Social Cognitive Theory and the Concept of Self-Efficacy

Many studies state that social cognitive theory (SCT) is the best theory to guide entrepreneurship education research (Nikou et al., 2023). As proposed by Bandura (1997) this study uses SCT and the concept of self-efficacy to explain how students develop career interests and goals, make career choices, and achieve career-related goals. It implies that students must believe that they have the capability to establish businesses and be entrepreneurs. The relevant and necessary capabilities to do so are known as self-efficacy (Lent, Brown, & Hackett, 1994).

SCT postulates that there is a direct link between a person's experience and their self-efficacy (Bandura, 1977). As stated by Bandura (1997) self-efficacy focuses on the beliefs that people have regarding their capabilities. People need to believe they are capable in order to perform at a certain level. They also need to believe that their performance affects the outcomes of their life events.

Chen, Greene, and Crick (1998) define self-efficacy in the context of entrepreneurship as the strength of a belief held by individuals that they have the capabilities to perform certain roles and tasks successfully as an entrepreneur. Entrepreneurship self-efficacy denotes the self-confidence of an individual. An individual must also have the will to persist and overcome the initial anxiety of being involved in a new startup; therefore, will is also a precursor of entrepreneurial intention (Jegede & Nieuwenhuizen, 2021).

Entrepreneurship education is necessary to assist students in developing the confidence and attitudes they need to make a success of entrepreneurship. Self-efficacy enables students to plan and take the necessary steps to achieve their entrepreneurship career goals (Elnadi & Geith, 2021). It is critically important to study self-efficacy to get a clear understanding of students' entrepreneurial behavior, including their persistence, resilience and dedication in the face of challenges and the effort they exert when completing a task (Memon, Soomro, & Shah, 2019).

According to Chahal, Dagar, Dagher, Rao, and Udemba (2023) self-efficacy shapes the entrepreneurial desires of students and should be used as a mediator between entrepreneurial education and entrepreneurial intention. Al-Qadasi, Zhang, Al-Jubari, Al-Awlaqi, and Aamer (2024) supported by Batool, Rasheed, Malik, and Hussain (2015) demonstrate the link between entrepreneurial education, self-efficacy and entrepreneurship. It has been shown that self-efficacy is directly linked to entrepreneurial success (Memon et al., 2019). Carr and Sequeira (2007) and Jiao, Ling, and Kellermanns (2021) show that the entrepreneurial intentions of students who are already engaged in entrepreneurial practice is high, since they already have relevant experience.

Ample studies into entrepreneurial intention, including the current study, contribute to existing literature on the mediating role of self-efficacy and entrepreneurial education factors, such as work readiness, career education, work, entrepreneurial education and entrepreneurial orientation. This study investigates the effect of self-efficacy on work readiness, career education and entrepreneurial orientation, which distinguishes it from existing studies.

2.2. Entrepreneurial Intention

Reddy, Vinay, and Venkateswarlu (2019) define entrepreneurship intention as the instinct, willingness or desire of an individual to become an entrepreneur. Other researchers offer different definitions, such as that entrepreneurial intention is an individual's desire to start and run their own business (Crant, 1996), being self-employed (Douglas & Shepherd, 2002) and that it predicts one's behavior (Skrbkováand & Rydvalová, 2021). Others state that entrepreneurship intention is the intention to start a business in the near future (Thompson, 2009). Ajzen (1991) explains that intention measures one's willingness to execute the desired behavior, which implies that students must have the intention and goal to become self-employed instead of being employed (Karimi, Biemans, Lans, Chizari, & Mulder, 2016).

It is believed that entrepreneurial education helps people to acquire competencies that allow them to become entrepreneurs (Ndofirepi, 2020). As such, students' intention to act must be determined to ensure that they will be driven to create an enterprise (Karimi et al., 2016; Maresch, Harms, Kailer, & Wurm, 2016). An entrepreneur is

someone who is self-employed, innovative, proactive and willing to take risks (Carland, Frank Hoy, Boulton, & Carland, 1984).

Tentama and Yusantri (2020) state that an intention to become involved in entrepreneurship motivates individuals to engage in various entrepreneurship-related tasks that are necessary to acquire the skills and knowledge they need to achieve success. Individuals with a high level of entrepreneurial intention possess the entrepreneurial values, attitudes, knowledge and skills that render them competitive in the labor market (Peterman & Kennedy, 2003; Van Gelderen et al., 2008).

It is evident from existing studies that different factors influence entrepreneurial intention (Faloye & Olatunji, 2018; Indarti & Rostiani, 2008; Liñán, 2004). Some studies have proven that self-efficacy influences the relationship between entrepreneurial education and entrepreneurial intention (Mei, Lee, & Xiang, 2020; Vanlalhriati et al., 2022). The current study investigates work readiness, career guidance, entrepreneurial education and entrepreneurial orientation to determine whether the relationship between these factors and entrepreneurial intention is mediated by self-efficacy. Career education is included because it plays an important role in creating awareness of various career options, including entrepreneurship. Work readiness is included because studies have proven that students opt for self-employment through entrepreneurship owing to high levels of unemployment. Entrepreneurial orientation is included since it reflects the willingness of students to become entrepreneurs and the knowledge that they must gain about entrepreneurship to become successful (Taatila & Down, 2012).

2.3. Work Readiness, Preparation and Entrepreneurial Intention

Putra, Sutadji, and Nurhadi (2021) state that work readiness means that someone is able to start or to do what they've planned; they are prepared to fulfil their role in the workplace. In the context of students, work readiness means that they are ready to be appointed in a job or become an entrepreneur. It refers to the extent of the knowledge and skills that a person has to work independently, or their readiness and adaptive ability to meet the demands of a job (Levett-Jones, Gersbach, Arthur, & Roche, 2011).

A study by Hayes, Freudenberg, and Delany (2022) has shown that work readiness also refers to students' perceptions of their preparedness and readiness to be employed, as well their awareness of the skills they need to be employable and whether they have these skills. Ruiz, Ribeiro, and Coduras (2016) state that work readiness consists of a set of personal traits that distinguish people who are ready for entrepreneurship and who exhibit the qualities or traits from those who are not ready for entrepreneurship. Students must acquire the necessary skills in order to be hired as employees or entrepreneurs (Baiti, Abdullah, & Rochwidowati, 2017). Work readiness involves essential matters such as certain personal/family-based characteristics, an economic/entrepreneurial background and a particular set of psychological traits (Coduras, Saiz-Alvarez, & Ruiz, 2016).

To ensure that students are work ready, it is important to design educational programmes that will encourage them to become involved in entrepreneurial activities (Iyortsuun, Goyit, & Dakung, 2021). Students' entrepreneurial mindset, knowledge and skills can be developed to prepare them for entrepreneurship (Baskaran, Mahadi, & Abdul Rasid, 2020; Hassan, Sade, & Rahman, 2020; Jayabalan, Nair, Kadiresan, Nadarajan, & Selvanathan, 2020). Entrepreneurship education programmes must equip them with the capabilities, knowledge, skills and confidence they need to become entrepreneurs. Edwards (2014) provides evidence that individuals with self-efficacy are confident about their work readiness and skills. This means that students who have been trained for entrepreneurship believe that they have the confidence to become an entrepreneur. Coduras et al. (2016) state that it is necessary to determine and measure entrepreneurship readiness. This study sets out to determine the influence of work readiness on self-efficacy when considering entrepreneurship.

H1: Work readiness significantly and positively influences self-efficacy.

2.4. Entrepreneurship Education and Entrepreneurial Intention

Existing studies confirm that entrepreneurship education is necessary to develop the individual characteristics, mindset, skills and practical abilities that students require to become involved in entrepreneurship (Neck & Corbett, 2018). Students learn about entrepreneurship through different theoretical and practical pedagogics and experiential learning during entrepreneurship practice (Neck & Greene, 2011). Entrepreneurship education creates spaces for students to reflect on their potential entrepreneurship careers (Longva, 2019). Cui and Bell (2022) state that self-efficacy plays a role in entrepreneurship education and students' belief that they can start their own businesses. Entrepreneurial education imparts the knowledge and skills that potential entrepreneurs require. Together, self-efficacy and entrepreneurial education can result in the development of entrepreneurial intention.

Entrepreneurship education has the ability to strengthen individual self-efficacy and entrepreneurial intentions (Shinnar, Hsu, & Powell, 2014). Duong (2022) reports that entrepreneurship education does not influence entrepreneurial intention, and vice versa. Lv et al. (2021) add that entrepreneurship education can be used as a mechanism to empower a person to start a business.

H2: Entrepreneurship education has a significant and positive influence on self-efficacy.

2.5. Career Education and Self-Efficacy

Career education helps students to acquire the necessary information, advice and guidance on the career they would like to pursue (Bridgstock, Grant-Iramu, & McAlpine, 2019; Jackson & Tomlinson, 2020). It gives students the opportunity to acquire the resilience, adaptability, flexibility and self-efficacy to cope with the demands of their careers. Students must be exposed to entrepreneurship and gain entrepreneurship experience before they can choose it as career (Burton, Sørensen, & Dobrev, 2016; Unger, Rauch, Frese, & Rosenbusch, 2011; Zapkau, Schwens, & Kabst, 2017). Career education helps students to reflect on their personal capabilities and motivations (Akkermans, Brenninkmeijer, Huibers, Roland, & Blonk, 2012; Kuijpers, Schyns, & Scheerens, 2006), which might lead them to commit to entrepreneurial careers (Porfeli & Lee, 2013). Career education helps students to develop entrepreneurial mindsets and allows them to gain capabilities in terms of communication, collaboration, identification of opportunities, critical thinking and problem solving (Rodriguez & Lieber, 2020). Hirschi and Fischer (2013) support this by stating that students' attitude could determine whether they take up entrepreneurship. In addition, entrepreneurs' success depends on the extent to which the behavior they adopt influences their actions. Cui and Bell (2022) state that students attending career education programmes could be influenced to see entrepreneurship as a possible career choice, thus encouraging them to engage in entrepreneurship. According to Burnette et al. (2019), self-efficacy enhances career development by cultivating beliefs and mindsets that give rise to entrepreneurship abilities.

H3: Career education has a significant and positive influence on self-efficacy.

2.6. Entrepreneurship Orientation and Entrepreneurial Intention

Entrepreneurial orientation (EO) is the internal capabilities of an entrepreneur (Jegede & Nieuwenhuizen, 2021). It is a multidimensional construct as it is found at the individual level as well as the firm level and involves different attributes that one should possess to be able to pursue entrepreneurship. For example, students who choose entrepreneurship as career should be proactive, innovative and willing to take risks (Ismail et al., 2015). To be successful entrepreneurs, these students must be characterized by a need for achievement, an ability to ensure locus of control, high self-esteem and innovativeness (Abdul-Mohsin, Abdul-Halim, & Ahmad, 2012). Students need an entrepreneurial orientation to engage in entrepreneurial activities, as well as the capacity, competence and willingness to become an entrepreneur (Taatila & Down, 2012).

H4: Entrepreneurship orientation has a significant and positive influence on self-efficacy.

2.7. Entrepreneurial Education and Entrepreneurial Intention: Mediation of Self-Efficacy

Nikou et al. (2023) refers to self-efficacy as confidence that one has in their own capabilities to implement or perform an activity. This implies that those intending to be involved in entrepreneurship should have the have the ability to operate a business by handling and overcoming the challenges and obstacles that influence entrepreneurship intention and behavior (Liu, Lin, Zhao, & Zhao, 2019). Entrepreneurship education is important to help individuals gain self-efficacy; it increases confidence and is a vital attribute needed for entrepreneurial success (Vanlalhriati et al., 2022). Through entrepreneurial education, individuals can improve their skills while broadening their horizons and deepening their beliefs (Liñán et al., 2011).

Existing studies provide evidence of the role that self-efficacy plays in the relationship between entrepreneurship education and entrepreneurial intention (Mei et al., 2020; Vanlalhriati et al., 2022; Wardana et al., 2020; Wu et al., 2022). However, the results presented by existing studies differ on the effect that self-efficacy has on entrepreneurship education, with some providing evidence of a direct and significant impact on entrepreneurial intention (Ferreira, Loiola, & Gondim, 2017), while others indicate a mediating effect of self-efficacy between entrepreneurship education and entrepreneurial intention (Wu et al., 2022). Existing studies further prove that self-efficacy mediates the effect of entrepreneurial education on entrepreneurial behavior (Cui, 2021). Hong, Liu, Cao, Tai, and Zhao (2020) also support the findings that self-efficacy positively mediates the relationship between entrepreneurship education and entrepreneurial intention, while Li and Wu (2019) report partial mediation by self-efficacy in the effect of entrepreneurial education on entrepreneurial intention.

H5: Self-efficacy significantly and positively mediates the relationship between entrepreneurial education factors and entrepreneurial intention.

Figure 1 shows the conceptual model to be tested in this study.

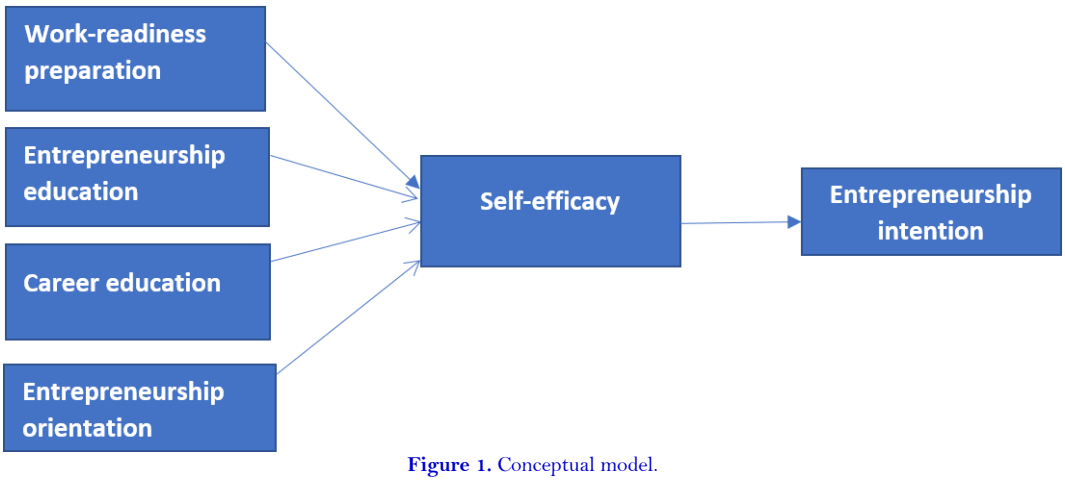

Figure 1. Conceptual model.

3. RESEARCH METHOD

3.1. Research Design

A quantitative research approach was deemed relevant as the study purported to determine the mediation effect of self-efficacy on the influence of entrepreneurship education on entrepreneurship intention. This approach allowed the researchers to achieve the objectives of the study.

3.2. Participants

The study targeted students registered for undergraduate and postgraduate marketing programmes in a department at a distance learning institution. The participants were drawn from a population of more than 10,000 students.

Of the total population of over 10,000, only 116 completed the questionnaire fully. Data collection took place between November 1, 2021, and February 28, 2022. This was during the COVID-19 pandemic when people's movements were restricted. It was also during the examination period, which might have contributed to the low response rate as students were busy preparing for and writing their October/November and January/February examinations. It is possible that some students did not have internet access because they did not have internet data, which would have affected their ability to access and complete the questionnaire online. A lack of access to internet data in South Africa is considered one of the barriers to online education (Kanwal & Rehman, 2017).

Female students represented the majority of the target population (72%; n = 98), while male students represented 28% (n = 38) of the population. The target population consisted of younger people (n = 80; 59%) than people over the age of 40 (n = 56; 41%). Undergraduate students were the majority and included students registered for a degree (40%; n = 54), followed by diploma students at 18% of the target population (n = 24). Third-year students were well represented (40%; n = 53), followed by second-year students (n = 25; 18%) and postgraduates (n = 24; 18%). Permanently employed respondents made up 44% (n =49) of the target population, followed by those not employed (n = 44; 39%).

3.3. Measuring Instrument

For data collection purposes, the study used a measuring instrument that was designed using existing literature. This was done to ensure the reliability of the research instrument. The instrument used a five-point Likert-type scale: 1 = Strongly disagree to 5 = Strongly agree. The questionnaire consisted of 19 items: each of the entrepreneurship factors as well as self-efficacy and entrepreneurial intention.

3.4. Procedure

Data used for the study were collected by an independent research company which was commissioned online. Students' data were collected online because the targeted university is a distance learning institution and teaches students online with minimal face-to-face activities. Permission to collect data from students was granted by the university. A university representative was responsible for the distribution of the measuring instrument, while the independent company monitored the completion of the questionnaire by the students.

3.5. Ethical Consideration

Permission was granted to conduct research targeted at students by the department, with reference number REF#: 2020_MRM_003, and the university, with reference number REF#: 2020_RPSC_027. Participating 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 time should they wish to do so. The students were also informed that their data would be anonymous and that the results would not be associated with their personal details.

3.6. Reliability and Validity

The Cronbach's alpha values for all the constructs are shown in Table 1. The values 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 is the case in this study. The validity of the study was also ascertained by designing the questionnaire using items from previous studies.

Table 1. Correlations and reliability.

Factors	Correlation	Work readiness	Entrepreneurship education	Career education	Entrepreneurship orientation	Self-efficacy
Work readiness	Pearson correlation	--				
	Sig. (2-tailed)					
Entrepreneurship education	Pearson correlation	0.503**	--			
	Sig. (2-tailed)	00000				
Career education	Pearson correlation	0.532**	0.799**	--		
	Sig. (2-tailed)	00000	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: * $p > 0.05$, ** $p > 0.01$.

3.7. Data Analysis

The data analysis was carried out using SPSS version 28 and included the analysis of the descriptive statistics and a regression analysis. To achieve the research objectives, it was necessary to perform a regression analysis to test the hypotheses.

4. RESULTS AND FINDINGS

4.1. Hypothesis Testing

As stated above, the hypotheses were tested using a regression analysis to determine if the conceptual model developed for this study is supported. Tables 2 and 3 below show that the model is significant at $p < 0.001$. The adjusted R-squared of 0.152 shows that the model is explained by 15% of the variation in the dependent variables.

Table 2. 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	0.427[a]	0.182	0.152	0.690	0.182	5.964	4	107	0.000

Note: a. Predictors: (Constant), entrepreneurship orientation, work readiness preparation, entrepreneurship education, career education.

Table 3. ANOVA[a].

Model	Sum of squares	df	Mean square	F	Sig.
Regression	11.361	4	2.840	5.964	<0.001b
Residual	50.960	107	0.476		
Total	62.321	111			

Note: a. Dependent variable: Self efficacy.
b. Predictors: (Constant), entrepreneurship orientation, work readiness preparation, entrepreneurship education, career education.

Table 4 portrays the results of the hypothesis testing and decision-making showing acceptance or rejection of the hypotheses.

Hypothesis 1 is rejected since the p-value of 0.562 is greater than 0.05. The coefficient value is B = -0413, and t = 0.681. Therefore, there is no direct relationship between work readiness and self-efficacy.

Hypothesis 2 is supported with a p-value < 0.001, which is less than 0.005. The co-efficient value of 0.552 denote the strengths of the effect that entrepreneurship education has on entrepreneurship intention. This implies that an increase in entrepreneurship education increases students' entrepreneurship intention by 55%.

Hypothesis 3 is rejected ($p > 0.976$), which implies that there is no direct relationship between career education and self-efficacy.

Hypothesis 4 is also rejected ($p > 0.689$), also proving that there is no direct relationship between entrepreneurship orientation and self-efficacy.

Table 4. 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		2.203	0.584	-	3.771	0.000	1.045	3.361	-	-
WR → SE	H1	-0.056	0.584	-0.043	-0.413	0.681	-0.324	0.212	0.694	1.441
EE → SE	H2	0.552	0.135	0.493	3.319	0.001	0.222	0.882	0.346	2.890
CE → SE	H3	-0.009	0.166	-0.007	-0.030	0.976	-0.576	0.559	0.156	6.398
EO → SE	H4	-0.089	0.286	-0.070	-0.401	0.689	-0.529	0.351	0.249	4.016

Note: Dependent variable: Self-efficacy (SE); Independent variables: Work readiness (WR), Entrepreneurship education (EE), Career education (CE), Entrepreneurship orientation (EO) and Variance inflation factor (VIF).

4.2. The Mediation Results

Table 5 portrays the results for mediation, determining the indirect/mediation effect of self-efficacy on the effect of entrepreneurial education on entrepreneurial intention. It is clear from the table that the relationship between entrepreneurship education factors and entrepreneurship intention is mediated by self-efficacy, with a total effect of 0.493 (t = 2.538, p < 0.024), an insignificant direct effect of 0.255 (t = 1.835, p < 0.109), a significant indirect effect of 0.238 (t = 2.404, p < 0.024), and a bias-corrected bootstrap of LLCI = 0.023, ULCI = 0.407. H5 is therefore supported.

Table 5. Indirect effects.

Hypothesis	Relationship	Coeff.	SE	T-value	P-value	LLCI	ULCI
Total effect	WRP -> EI	-0.043	0.117	-0.368	0.658	-0.273	0.192
	EE -> EI	0.493	0.195	2.528	0.024	0.058	0.774
	CE -> EI	-0.007	0.220	-0.032	0.868	-0.481	0.397
	EO -> EI	-0.070	0.183	-0.383	0.714	-0.422	0.301
Direct effect	WRP -> SE -> EI	0.048	0.082	0.585	0.582	-0.113	0.213
	EE -> SE -> EI	0.255	0.139	1.835	0.109	-0.058	0.477
	CE -> SE -> EI	-0.105	0.159	-0.660	0.425	-0.441	0.190
	EO -> SE -> EI	-0.076	0.131	-0.580	0.561	-0.320	0.194
Indirect effect	WRP -> SE -> EI	-0.091	0.073	-1.247	0.164	-0.241	0.045
	EE -> SE -> EI	0.238	0.099	2.404	0.033	0.023	0.407
	CE -> SE -> EI	0.098	0.162	0.605	0.586	-0.231	0.403
	EO -> SE -> EI	0.006	0.136	0.044	0.944	-0.263	0.268

Note: Coeff = Coefficient, LLCI = Lower limit confidence internal; ULCI = Upper limit confidence interval.

5. DISCUSSION

To determine if self-efficacy has an effect on the relationship between entrepreneurial factors and students' entrepreneurial intention, the study focused on entrepreneurial education, work readiness, career education and entrepreneurial orientation as entrepreneurial factors. The findings proved that the work readiness of students does not have an effect on their self-efficacy. The implication of this finding is that students' belief in entrepreneurship cannot be increased by preparing them for work. Existing studies did find a positive and significant effect between work readiness and self-efficacy (Baharin & Hanafi, 2020). Other studies also provided evidence of a strong correlation between work readiness and self-efficacy (Makki, Feng, Waqar, & Adhikari, 2023; Syofyan, 2021), which contradict this study's findings.

As supported by Ahmed, Govindaraju, Klobas, and Liñán (2020) this study found that entrepreneurial education enhances students' self-efficacy. This is further supported by Yeh, Lin, Wang, Wang, and Lo (2021) and Ferreira et al. (2017).

The finding that career education does not have an effect on self-efficacy is supported by existing studies, but others provide evidence that career education does have an influence on entrepreneurial intention (Cui & Bell, 2022; Hu, Liu, Tian, Zhang, & Mao, 2022; Wilson, Kickul, & Marlino, 2007).

Entrepreneurial orientation does not have influence on self-efficacy as proved in this study. However existing studies proved otherwise by providing evidence of a relationship between self-efficacy and entrepreneurial orientation (Baba, 2014; Shen, Wang, Hua, & Zhang, 2021). This study proved that self-efficacy has an effect on the relationship between entrepreneurial education and entrepreneurial intention. This is well supported in literature (Batool et al., 2015; Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019; Wu et al., 2022; Yeh et al., 2021). Other studies support the mediation effect of self-efficacy on the relationship between entrepreneurship education and entrepreneurship intention with no direct effect (Li & Wu, 2019; Vanlalhriati et al., 2022). Elnadi and Geith (2021) indicated that the relationship between self-efficacy and entrepreneurial intention is direct and that self-efficacy also has an indirect mediation effect on the relationship between entrepreneurship education and entrepreneurship intention. The mediation effect of self-efficacy on the relationship between entrepreneurship

education and entrepreneurship intention is further supported by Setiawan, Kasim, and Ardyan (2022); Awotunde (2021); Zhang and Huang (2021); Pihie and Bagheri (2013) and Yeh et al. (2021).

6. CONCLUSION

To ensure that graduates are employable, universities should place entrepreneurship education at the center of their curriculum design. Entrepreneurship education in universities should aim to develop the self-efficacy of students to enhance their perceptions of entrepreneurship as a career. The primary aim of the study was achieved since it determined that self-efficacy does mediate the relationship between entrepreneurship education and entrepreneurship intention. It was proven in this study that the relationship between work readiness, career education, entrepreneurship orientation and entrepreneurship intention are not mediated by self-efficacy. This study also found that there is a direct relationship between entrepreneurship education and self-efficacy. Work readiness, career education and entrepreneurship education were found to have no relationship with entrepreneurship intention. It can be concluded that self-efficacy is necessary for students to be involved in entrepreneurship as a career. Further, career education, work readiness and entrepreneurship orientation prepare students for entrepreneurship, and self-efficacy plays no role in these.

6.1. Theoretical Contribution

This study makes a theoretical contribution by adding new findings to existing studies within entrepreneurship education in distance learning environments. The study could not confirm a direct relationship between work readiness and self-efficacy. It could also not confirm the mediation effect of self-efficacy on the relationship between work readiness and entrepreneurship intention.

The study found that entrepreneurship education has an effect on entrepreneurship intention. Although existing studies have reported similar findings, these studies did not focus on distance learning settings, which was the focus of this study. Also, none of the existing studies focused on marketing students, while this study did.

The findings prove that there is a relationship between self-efficacy and entrepreneurship intention. Most studies investigating this relationship fail to report a direct relationship between the two but do report an indirect relationship. This means that this study has made a valuable contribution by concluding that there is a direct relationship between self-efficacy and entrepreneurship intention.

This study also investigated the relationship between work readiness, career education and entrepreneurship intention, which has received very little attention in existing studies. Although the results did not show a relationship, the contribution of the study here is that such factors do not have any relationship with entrepreneurship intention. This also applies to entrepreneurship orientation, which was found to have no relationship with entrepreneurship intention – a similar finding to those reported in existing literature.

More importantly, it was revealed that self-efficacy has a mediating effect on the relationship between entrepreneurship education and entrepreneurship intention. Other factors did not have such a relationship. These findings strengthen existing findings by supporting the notion that an indirect relationship exists between entrepreneurship education and entrepreneurship intention.

6.2. Practical Recommendations

The study investigated five factors to determine whether they are linked to entrepreneurship intention. Two of these factors – entrepreneurship education and self-efficacy – were found to have an influence on entrepreneurship intention. Since entrepreneurship education was found to influence entrepreneurship intention, universities should continue offering entrepreneurship education. More importantly, universities should incorporate a practical component in entrepreneurship education so that students not only study the theory, but also become involved in practicing entrepreneurship. Extant literature demonstrates a lack of entrepreneurship knowledge among

educators. Therefore, universities should ensure that educators are trained to teach entrepreneurship and involve existing entrepreneurs in their teaching. Ramchander (2019) recommends that attention be paid to the development of entrepreneurial skills such as perseverance, resilience and self-efficacy. Universities can achieve this by either employing or partly involving experienced entrepreneurs in the teaching of entrepreneurship courses.

Involving students in entrepreneurship, especially 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 the attitudes of those who believe that entrepreneurship is for some people but not for them (Duong, 2022).

7. IMPLICATIONS

The study revealed the mediating effect of self-efficacy on the relationship between entrepreneurship education and entrepreneurship intention. The implication of this is that universities must increase students' self-efficacy, which, in turn, will encourage more students to choose entrepreneurship as a career. This could be achieved by hosting workshops to encourage students to choose entrepreneurship and by placing entrepreneurship at the center of every programme, subject and module. Students should be supported to see that they could all become entrepreneurs, as entrepreneurship is not meant only for specific kinds of people. The results also imply that policymakers should support universities in offering entrepreneurship education and helping them to perform in this regard.

8. LIMITATIONS AND FUTURE STUDIES

This study investigated the effect of entrepreneurship factors on students' entrepreneurial intention. It targeted the registered students of one department in a single distance learning university. Other 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 in Africa.

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REFERENCES

Abdul-Mohsin, A. M., Abdul-Halim, H., & Ahmad, N. H. (2012). Delving into the issues of entrepreneurial attitude orientation and market orientation among the SMEs A conceptual paper on international congress on interdisciplinary business and social science2012 (ICIBSoS 2012). *Procedia - Social and Behavioral Sciences 65*, 731–736. https://doi.org/10.1016/j.sbspro.2012.11.191

Ahmed, T., Govindaraju, V. G. R. C., Klobas, I. E., & Liñán, F. (2020). Entrepreneurship education programmes: How learning, inspiration and resources affect intentions for new venture creation in a developing economy. *The International Journal of Management Education, 18*(1), 100327. https://doi.org/10.1016/j.ijme.2019.100327

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Akkermans, J., Brenninkmeijer, V., Huibers, M., Roland, W. B., & Blonk, R. W. (2012). Competencies for the contemporary career: Development and preliminary validation of the career competencies questionnaire. *Journal of Career Development*, *40*(3), 245–267. https://doi.org/10.1177/0894845312467501

Al-Qadasi, N., Zhang, G., Al-Jubari, I., Al-Awlaqi, M. A., & Aamer, A. M. (2024). Entrepreneurship education and entrepreneurial behaviour: Do self-efficacy and attitude matter? *The International Journal of Management Education*, *22*, 100945. https://doi.org/10.1016/j.ijme.2024.100945

Antonioli, D., Nicolli, F., Ramaciotti, L., & Rizzo, U. (2016). The effect of intrinsic and extrinsic motivations on academics' entrepreneurial intention. *Administrative Sciences*, *6*(4), 15. https://doi.org/10.3390/admsci6040015

Awotunde, M. O. (2021). *Developing entrepreneurial self-efficacy and individual entrepreneurial orientation: An action-oriented approach.* Thesis, University of Kwazulu Natal.

Baba, M. (2014). *Relationship between entrepreneurial orientation, entrepreneurial education, self-efficacy and entrepreneurial intention among undergraduate students at Nigerian universities.* Dissertation, University of Malaysia.

Baharin, N. Y., & Hanafi, N. W. (2020). *Work readiness skills and career self-efficacy: A case of Malaysian private university.* Paper presented at the IEBMC 2019 9th International Economics and Business Management Conference. European Proceedings of Social and Behavioural Sciences EpSBS. https://doi.org/10.15405/epsbs.2020.12.05.74.

Baiti, D. R., Abdullah, S. M., & Rochwidowati, N. S. (2017). Career self-efficacy and job readiness in final semester students. *Jurnal Psikologi Integratif Prodi Psikologi UIN Sunan Kalijaga*, *5*(2), 128–141.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Baskaran, S., Mahadi, N., & Abdul Rasid, S. (2020). Entrepreneurial career choice: A study among MBA students from Universiti Teknologi Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *10*(11), 1318-1333. https://doi.org/10.6007/ijarbss/v10-i11/8255

Batool, H., Rasheed, H., Malik, M. I., & Hussain, S. (2015). Application of partial least square in predicting e-entrepreneurial intention among business students: Evidence from Pakistan. *Journal of Innovation and Entrepreneurship*, *4*(1), 1-16. https://doi.org/10.1186/s13731-015-0019-3

Bauman, A., & Lucy, C. (2019). Enhancing entrepreneurial education: Developing competencies for success. *International Journal of Management Education*, 100293. https://doi.org/10.1016/j.ijme.2019.03.005

Bridgstock, R., Grant-Iramu, M., & McAlpine, A. (2019). Integrating career development learning into the curriculum: Collaboration with the careers service for employability. *Journal of Teaching and Learning for Graduate Employability*, *10*(1), 56-72. https://doi.org/10.21153/jtlge2019vol10no1art785

Burnette, J., Pollack, J. M., Forsyth, J. B., Hoyt, C. L., Babij, A. D., Thomas, F. N., & Coy, A. E. (2019). A growth mindset intervention: Enhancing students' entrepreneurial self-efficacy and career development. *Entrepreneurship Theory and Practice*, 1–31. https://doi.org/10.1177/1042258719864293

Burton, M. D., Sørensen, J. B., & Dobrev, S. D. (2016). A careers perspective on entrepreneurship. *Entrepreneurship Theory and Practice*, *40*(2), 237-247. https://doi.org/10.1111/etap.12230

Carland, J. W., Frank Hoy, F., Boulton, W. R., & Carland, J. C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of Management Review*, *9*(2), 354-359. https://doi.org/10.2307/258448

Carr, J. C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research*, *60*(10), 1090–1098. https://doi.org/10.1016/j.jbusres.2006.12.016

Chahal, J., Dagar, V., Dagher, l., Rao, A., & Udemba, E. N. (2023). The crisis effect in TPB as a moderator for post-pandemic entrepreneurial intentions among higher education students: PLS-SEM and ANN approach. *The International Journal of Management Education*, *21*(3), 100878. https://doi.org/10.1016/j.ijme.2023.100878

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of business venturing*, *13*(4), 295-316. https://doi.org/10.1016/S0883-9026(97)00029-3

Chimucheka, T. (2014). Entrepreneurship education in South Africa. *Mediterranean Journal of Social Sciences*, *5*(2), 403-415. https://doi.org/10.5901/mjss.2014.v5n2p403

Chinyamurindi, W. T. (2016). A narrative investigation on the motivation to become an entrepreneur among a sample of black entrepreneurs in South Africa: Implications for entrepreneurship career development education. *Independent Research Journal in the Management Sciences*, *16*(1), 1–9. https://doi.org/10.4102/ac.v16i1.310

Coduras, A., Saiz-Alvarez, J., & Ruiz, J. (2016). Measuring readiness for entrepreneurship: An information tool proposal. *Journal of Innovation & Knowledge*, *1*, 99–108. http://dx.doi.org/10.1016/j.jik.2016.02.003

Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Management*, *29*(3), 62-74.

Cui, J. (2021). The influence of entrepreneurial education and psychological capital on entrepreneurial behavior among college students. *Frontiers in Psychology*, *12*, 755479. https://doi.org/10.3389/fpsyg.2021.755479

Cui, J., & Bell, R. (2022). Behavioural entrepreneurial mindset: How entrepreneurial education activity impacts entrepreneurial intention and behaviour. *The International Journal of Management Education*, *20*(2), 100639. https://doi.org/10.1016/j.ijme.2022.100639

Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, *26*(3), 81-90. https://doi.org/10.1177/104225870202600305

Duong, C. D. (2022). Exploring the link between entrepreneurship education and entrepreneurial intentions: The moderating role of educational fields. *Education + Training*, *64*(7), 869-891. https://doi.org/10.1108/ET-05-2021-0173

Edwards, M. (2014). The impact of placements on students' self-efficacy. *Higher Education, Skills and Work-based Learning*, *4*(3), 228-241. https://doi.org/10.1108/heswbl-05-2014-0015

Elnadi, M., & Geith, H. (2021). Entrepreneurial ecosystem, entrepreneurial self-efficacy, and entrepreneurial intention in higher education: Evidence from Saudi Arabia. *The International Journal of Management Education*, *19*(1), 100458. https://doi.org/10.1016/j.ijme.2021.100458

Faloye, D. O., & Olatunji, O. D. (2018). Entrepreneurship education and self-employment intentions among fresh graduates in Nigeria. *Journal of Economics and Sustainable Development*, *9*(12), 146-158.

Ferreira, A. d. S. M., Loiola, E., & Gondim, S. M. G. (2017). Individual and contextual predictors of entrepreneurial intention among undergraduates: A literature review. *Cadernos Ebape. Br*, *15*, 292-308. https://doi.org/10.1590/1679-395159595

Ginanjar, A. (2016). Entrepreneurship education and entrepreneurial intention on entrepreneurship behaviour: A case study. *Advances in Economics, Business and Management Research 1st Global Conference on Business, Management and Entrepreneurship (GCBME-16)*, *15*, 683-686. https://doi.org/10.2991/gcbme-16.2016.129

Hassan, H., Sade, A. B., & Rahman, M. S. (2020). Shaping entrepreneurial intention among youngsters in Malaysia. *Journal of Humanities and Applied Social Sciences*, *2*(3), 235-251. https://doi.org/10.1108/JHASS-02-2020-0029

Hathaway, I., & Litan, R. E. (2014). *Declining business dynamism in the United States: A look at states and metros economic studies, Brookings Institution.* Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/declining_business_dynamism_hathaway_litan.pdf

Hayes, S., Freudenberg, B., & Delany, D. (2022). Work-ready graduates for Australian small and medium accounting firms. *Journal of Teaching and Learning for Graduate Employability*, *13*(1), 1-19. https://ssrn.com/abstract=4037066

Hirschi, A., & Fischer, S. (2013). Work values as predictors of entrepreneurial career intentions. *Career Development International*, *18*(3), 216- 231. https://doi.org/10.1108/CDI-04-2012-0047

Hong, J., Liu, X., Cao, W., Tai, K., & Zhao, L. (2020). Effects of self-efficacy and online learning mind states on learning ineffectiveness during the COVID-19 lockdown. *Educational Technology & Society*, *25*(1), 142-154.

Hu, W., Liu, H., Tian, Y., Zhang, X., & Mao, Y. (2022). Entrepreneurial capability, career development, and entrepreneurial intention: Evidence from China's HR survey data. *Front. Psychology*, *13*, 1-12. https://doi.org/10.3389/fpsyg.2022.870706

Indarti, N., & Rostiani, R. (2008). Students' entrepreneurial intentions: A comparative study between Indonesia, Japan and Norway. *Jurnal Ekonomika dan Bisnis Indonesia*, *23*, 1–27. https://doi.org/10.22146/jieb.6316

Ismail, K., Anuar, M. A., Omar, W. Z. W., Aziz, A. A., Seohod, K., & Akhtar, C. S. (2015). Entrepreneurial intention, entrepreneurial orientation of faculty and students towards commercialization. *Procedia-Social and Behavioural Sciences*, *181*, 349-355. https://doi.org/10.1016/j.sbspro.2015.04.897

Iyortsuun, A. S., Goyit, M. G., & Dakung, R. J. (2021). Entrepreneurship education programme, passion and attitude towards self-employment. *Journal of Entrepreneurship in Emerging Economies*, *13*(1), 64-85. https://doi.org/10.1108/JEEE-11-2019-0170

Jackson, D., & Tomlinson, M. (2020). Investigating the relationship between career planning, proactivity and employability perceptions among higher education students in uncertain labour market conditions. *High Education*, *80*, 435–455. https://doi.org/10.1007/s10734-019-00490-5

Jayabalan, N., Nair, S., Kadiresan, V., Nadarajan, D., & Selvanathan, M. (2020). An exploratory study on challenges of undergraduate entrepreneurs: A case study in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *10*(11), 1507-1516. https://doi.org/10.6007/IJARBSS/v10-i11/9076

Jegede, O., & Nieuwenhuizen, C. (2021). Effects of entrepreneurial orientation and external business environment on entrepreneurial intentions of STEM students in Nigeria. *Journal of Contemporary Management*, *18*(2), 42-66. https://doi.org/10.35683/jcm21026.119

Jiao, K., Ling, Y., & Kellermanns, F. W. (2021). Does prior experience matter? A meta-analysis of the relationship between prior experience of entrepreneurs and firm performance. *Journal of Small Business Management*, 1-48. https://doi.org/10.1080/00472778.2021.1951280

Kakouris, A., & Georgiadis, P. (2016). Analysing entrepreneurship education: A bibliometric survey patter. *Journal of Global Entrepreneurship Research*, *6*(6), 1-18. https://doi.org10.1186/s40497-016-0046-y

Kanwal, F., & Rehman, M. (2017). Factors affecting e-learning adoption in developing countries—empirical evidence from Pakistan's higher education sector. *IEEE Access*, 10968- 10978. https://doi.org/10.1109/ACCESS.2017.2714379

Karimi, S., Biemans, H. J., Lans, T., Chizari, M., & Mulder, M. (2016). The impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification. *Journal of Small Business Management*, *54*(1), 187-209.

Kuijpers, M. A. C. T., Schyns, B., & Scheerens, J. (2006). Career competencies for career success. *The Career Development Quarterly*, *55*(2), 168-178. https://doi.org/10.1002/j.2161-0045.2006.tb00011.x

Lang, L., Zhang, L., Zhang, P., Li, Q., Bian, J., & Guo, L. (2018). Evaluating the reliability and validity of SF-8 with a large representative sample of urban Chinese. *Health Qual Life Outcomes*, *316*(1), 55. https://doi.org/10.1186/s12955-018-0880-4

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, *45*(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Levett-Jones, T., Gersbach, J., Arthur, C., & Roche, J. (2011). Implementing a clinical competency assessment model that promotes critical reflection and ensures nursing graduates' readiness for professional practice. *Nurse Education in Practice*, *11*(1), 64-69. https://doi.org/10.1016/j.nepr.2010.07.004

Li, L., & Wu, D. (2019). Entrepreneurial education and students' entrepreneurial intention: Does team cooperation matter? *Journal of Global Entrepreneurship Research*, *9*(35), 1-13. https://doi.org/10.1186/s40497019-0157-3

Liñán, F. (2004). Intention-based models of entrepreneurship education. *Piccolla Impresa/Small Business*, *3*(1), 11-35.

Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, *7*, 195-218. https://doi.org.10.1007/s11365-010-0154-z

Liu, X., Lin, C., Zhao, G., & Zhao, D. (2019). Research on the effects of entrepreneurial education and entrepreneurial self-efficacy on college students' entrepreneurial intention. *Front Psychol*, *10*, 1-9. https://doi.org/10.3389/fpsyg.2019.00869

Longva, K. K. (2019). *The impact of entrepreneurship education on students' career reflections.* A Thesis for the Degree of Philosophiae Doctor (PhD) – September 2019. UiT – The Arctic University of Norway.

Lv, Y., Chen, Y., Sha, Y., Wang, J., An, L., Chen, T., . . . Huang, L. (2021). How entrepreneurship education at universities influences entrepreneurial intention: Mediating effect based on entrepreneurial competence. *Front. Psychol*, *12*, 655868. https://doi.org/10.3389/fpsyg.2021.655868

Mago, S. (2018). Urban youth unemployment in South Africa: Socio economic and political problems. *Commonwealth Youth and Development*, *16*(1), 1-19. https://doi.org/10.25159/2663-6549/1996

Makki, B. I., Feng, F., Waqar, M. A., & Adhikari, I. M. (2023). Work readiness, decision-making self-efficacy, and career exploration among engineering students: A two-step framework. *Mathematical Problems in Engineering*, *2023*(1), 8166825. https://doi.org/10.1155/2023/8166825

Malhotra, N. K. (2020). *Marketing research: An applied orientation* (7th ed.). Upper Saddle River: Pearson Prentice-Hall.

Maresch, D., Harms, R., Kailer, N., & Wurm, B. W. (2016). The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs. *Technological Forecasting and Social Change*, *104*, 172–179. https://doi.org/10.1016/j.techfore.2015.11.006

Mbuya, J., Diniso, C., & Mphahlele, A. (2021). *Youth entrepreneurship in South Africa: A progress review.* Paper presented at the 10th IBC Conference 2016, South Africa.

Mei, H., Lee, C. H., & Xiang, Y. (2020). Entrepreneurship education and students' entrepreneurial intention in higher education. *Education Sciences*, *10*, 257. https://doi.org/10.3390/educsci10090257

Memon, M. M., Soomro, B. A., & Shah, N. (2019). Enablers of entrepreneurial self-efficacy in a developing country. *Education + Training*, *61*(6), 684-699. https://doi.org/10.1108/ET-10-2018-0226

Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, *9*(2), 1-20. https://doi.org/10.1186/s13731-020-0115-x

Neck, H. M., & Corbett, A. C. (2018). The scholarship of teaching and learning entrepreneurship. *Entrepreneurship Education and Pedagogy*, *1*(1), 8-41. https://doi.org/10.1177/2515127417737286

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education - known worlds and new frontiers. *Journal of Small Business Management*, *49*(1), 55-70. https://doi.org/10.1111/j.1540-627X.2010.00314.x

Nikou, S., Brush, C., & Wraae, B. (2023). Entrepreneurship educators: A configurational analysis of factors influencing pedagogical choices. *International Journal of Entrepreneurial Behavior & Research*, *29*(11), 81-108. https://doi.org/10.1108/IJEBR-08-2022-0760

Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, *44*(2), 361-337. https://doi.org/10.1080/03075079.2017.1365359

Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, *28*(9), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x

Pihie, Z. A. L., & Bagheri, A. (2013). Self-efficacy and entrepreneurial intention: The mediation effect of self-regulation. *Vocations and Learning*, *6*, 385-400. https://doi.org/10.1007/s12186-013-9101-9

Porfeli , E., & Lee, B. (2013). Career development during childhood and adolescence. *New Directions for Youth Development*, *2012*(134), 11-22. https://doi.org/10.1002/yd.20011

Putra, R. A., Sutadji, W. E., & Nurhadi, D. (2021). Work and entrepreneurship readiness through 21st century skills in vocational school students. *Universal Journal of Educational Research*, *9*(3), 497-503. https://doi.org/10.13189/ujer.2021.090309

Rahim, H. L., Abidin, Z. Z., Mohtar, S., & Ramli, A. (2015). The effect of entrepreneurial leadership towards organizational performance. *International Academic Research Journal of Business and Technology*, *1*(2), 193-200.

Ramchander, M. (2019). Reconceptualising undergraduate entrepreneurship education at traditional South African universities. *Acta Commercii*, *19*(2), a644. https://doi.org/10.4102/ac.v19i2.644

Rasmussen, A., Moberg, K., & Jensen, C. R. (2015). *A taxonomy of entrepreneurship education: Perspectives on goals, teaching and evaluation. The Danish Foundation for Entrepreneurship- Young Enterprise, Ejlskovsgade 3D, 5000 Odense C, Denmark* (8790386213). Retrieved from https://eng.ffe-ye.dk/media/785766/taxonomy-en.pdf

Reddy, R. R., Vinay, M., & Venkateswarlu, P. (2019). Analysis of determinants of entrepreneurial intentions among construction workers. *Theoretical Economics Letters*, *9*, 296-307. https://doi.org/10.4236/tel.2019.92022

Rodriguez, S., & Lieber, H. (2020). Relationship between entrepreneurship education, entrepreneurial mindset, and career readiness in secondary students. *Journal of Experiential Education*, *43*(3), 277–298. https://doi.org/10.1177/1053825920919462

Ruiz, J., Ribeiro, D., & Coduras, A. (2016). Challenges in measuring readiness for entrepreneurship. *Management Decision*, *54*(5), 1022-1046. https://doi.org/10.1108/MD-07-2014-0493

Setiawan, J. L., Kasim, A., & Ardyan, E. (2022). Understanding the consumers of entrepreneurial education: Self-Efficacy and entrepreneurial attitude orientation among youths. *Sustainability*, *14*, 4790. https://doi.org/10.3390/su1408479

Shen, Y., Wang, Q., Hua, D., & Zhang, Z. (2021). Entrepreneurial learning, self-efficacy, and firm performance: Exploring moderating effect of entrepreneurial orientation. *Front. Psychol.*, *12*, 731628. https://doi.org/10.3389/fpsyg.2021.731628

Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *The International Journal of Management Education*, *12*(3), 561-570. https://doi.org/10.1016/j.ijme.2014.09.005

Skrbkováand, D., & Rydvalová, P. (2021). Entrepreneurial intentions: A comparative study of African and European university economics students. *Journal of African Business*, 1-19. https://doi.org/10.1080/15228916.2023.2276541

Soomro, B. A., & Shah, N. (2022). Entrepreneurship education, entrepreneurial self-efficacy, need for achievement and entrepreneurial intention among commerce students in Pakistan. *Education + Training*, *64*(1), 107-125. https://doi.org/10.1108/ET-01-2021-0023

Syofyan, R. (2021). *The effect of self-efficacy on the work readiness of Universitas Negeri Padang students during the Covid-19 pandemic.* Paper presented at the Proceedings of the Eighth Padang International Conference on Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA-8 2021). Advances in Economics, Business and Management Research, 222, 391-393.

Taatila, V., & Down, S. (2012). Measuring entrepreneurial orientation of university students. *Education + Training*, *54*(8/9), 744-760. https://doi.org/10.1108/00400911211274864

Tentama, F., & Yusantri, S. (2020). The role of entrepreneurial intention in predicting vocational high school students' employability. *International Journal of Evaluation and Research in Education*, *9*(3), 558-563. https://doi.org/10.11591/ijere.v9i3.20580

Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, *33*(3), 669–694. https://doi.org/10.1111/j.1540-6520.2009.00321.x

Uddin, M., Chowdhury, R. A., Hoque, N., Ahmad, A., Mamun, A., & Uddin, M. N. (2022). Developing entrepreneurial intentions among business graduates of higher educational institutions through entrepreneurship education and entrepreneurial passion: a moderated mediation model. *The International Journal of Management Education*, *20*(2), 100647. https://doi.org/10.1016/j.ijme.2022.100647

Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, *26*(3), 341-358. https://doi.org/10.1016/j.jbusvent.2009.09.004

Urban, B., & Richard, P. (2015). Perseverance among university students as an indicator of entrepreneurial intent. *South African Journal of Higher Education*, *29*(5), 263–278. https://doi.org/10.20853/29-5-528

Van Gelderen, M., Brand, M., Van Praag, M., Bodewes, W., Poutsma, E., & Van Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International*, *13*(6), 538–559. https://doi.org/10.1108/13620430810901688

Vanlalhriati, C., Sharma, L. S., & Vanlalkulhpuia, C. (2022). Entrepreneurial intention of students through the influence of entrepreneurial education: A mediation perspective. *International Journal of Health Sciences*, *6*(S3), 2997–3007. https://doi.org/10.53730/ijhs.v6nS3.6249

Wardana, L. W., Narmaditya, B. S., Wibowo, A., Mahendra, A. M., Wibowo, N. A., Harwida, G., & Rohman, A. N. (2020). The impact of entrepreneurship education and students' entrepreneurial mindset: The mediating role of attitude and self-efficacy. *Heliyon*, *6*(9), e04922. https://doi.org/10.1016/j.heliyon.2020.e04922

Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self–efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, *31*(3), 387-406. https://doi.org/10.1111/j.1540-6520.2007.00179.x

Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y., & Pan, H. (2022). Entrepreneurship education and entrepreneurial intentions of college students: The mediating role of entrepreneurial self-efficacy and the moderating role of entrepreneurial competition experience. *Frontiers in Psychology*, *12*, 727826. https://doi.org/10.3389/fpsyg.2021.727826

Yeh, C.-H., Lin, H.-H., Wang, Y.-M., Wang, Y.-S., & Lo, C.-W. (2021). Investigating the relationships between entrepreneurial education and self-efficacy and performance in the context of internet entrepreneurship. *The International Journal of Management Education*, *19*(3), 100565. https://doi.org/10.1016/j.ijme.2021.100565

Zapkau, F. B., Schwens, C., & Kabst, R. (2017). The role of prior entrepreneurial exposure in the entrepreneurial process: A review and future research implications. *Journal of Small Business Management*, *55*(1), 56-86. https://doi.org/10.1111/jsbm.12232

Zhang, J., & Huang, J. (2021). Entrepreneurial self-efficacy mediates the impact of the post-pandemic entrepreneurship environment on college students' entrepreneurial intention. *Frontiers in Psychology*, *12*, 643184. https://doi.org/10.3389/fpsyg.2021.643184