



ENTREPRENEURIAL ENVIRONMENT AS AN ANTECEDENT OF UNIVERSITY STUDENTS' ENTREPRENEURSHIP INTENTIONS

Dr Patrick Ebong Ebewo¹ Orcid ID: 0000-0002-0128-8558,
Dr Alufheli Edgar Nesamvuni² Orcid ID: 0000-0002-9434-8731

DOI: <https://doi.org/10.14426/jeiv1i2.707>

Abstract:

The primary purpose of the study was to develop a model for measuring entrepreneurship intentions among university art students. Therefore, the study investigated and attempted to answer the following question: To what extent does entrepreneurial environment affect the antecedents of entrepreneurial intention (Attitude towards entrepreneurship, subjective norm and perceived behavioural control)? A sample of 150 graduates from the Arts and Design programme took part in the study and data collected was analysed using Structural Equation Modelling (SEM). The results provide evidence that subjective norm is an insignificant predictor of entrepreneurial intention compared to attitudes towards entrepreneurial behaviour and entrepreneurial self-efficacy. Perceived environment support was observed to directly relate to future Entrepreneurial Intentions and it also mediates the relationship between Perceived University Environment, Perceived Entrepreneurial Abilities and immediate Entrepreneurial Intentions. It is recommended that policymakers should consider the development of a coherent national policy framework that addresses entrepreneurship for the art/creative industries sector. Future research is recommended to fully evaluate the effectiveness of the impact that subject components in Entrepreneurship Education have on students' attitudes towards entrepreneurship, perceived entrepreneurial abilities, and Entrepreneurial Intentions.

Keywords: *Arts and Creative Industries; Entrepreneurial Education; Entrepreneurial environment; Entrepreneurial Intentions; University Support*

Introduction

Unemployment is a growing concern globally, but particularly in South Africa. The latest statistics in South Africa indicate that about 34 per cent of the country's working population (between 15 and 64 years of age) is unemployed. Of these, a clear majority (71 per cent) are youths (Statistics South Africa 2015). A common policy response to the problem of unemployment is the fostering of entrepreneurship, particularly among students (Movahedi and Fath 2011). Entrepreneurship is widely considered to be an important mechanism to drive sustainable economic growth through job creation, innovation and welfare effects (Herrington, Kew, and Kew 2015). For example, the National Development Programme (NDP) in South Africa considers entrepreneurial development as the country's priority for socio-economic development.

¹Faculty of Management Sciences, Tshwane University of Technology
Pretoria (South Africa); EbewoP1@tut.ac.za

²Faculty of Management Sciences, Tshwane University of Technology
Pretoria (South Africa); NesamvuniAE@tut.ac.za

Upon closer inspection, these statistics also reveal that university students constitute a significant proportion of the unemployed. The current economic situation in South Africa suggests that 56 per cent of university students will face unemployment upon completion of their studies, and art students will suffer disproportionately from unemployment (Statistics South Africa 2015). It is observed that university graduates increasingly lack the interest and expertise to engage in entrepreneurial activity, thus the high unemployment amongst the youth (Makgosa and Ongori 2012; Herrington, Kew, Simre and Turton 2011). The Global Entrepreneurship Monitor (GEM) notes that entrepreneurial activity in South Africa, although very low for a developing nation, increased marginally over the last 10 years, but in 2014 it dropped by a staggering 34 per cent (from 10.6% to 7%) (Herrington et al. 2015).

Research suggests that even though the youth have a lack of interest and expertise, nationally they have the highest levels of entrepreneurial activity within any economy in South Africa, compared to the older generation, as entrepreneurship intention is directly proportional to educational level (CISAC 2014; Herrington et al. 2015; Ndedi 2013; Sondari 2014). South Africa has a very supportive entrepreneurial development structure which should theoretically encourage entrepreneurial activity, but this is not the case. Thus, the rise in unemployment of graduates raises a concern, as few of them are engaged in entrepreneurship (Gregory 2011; Sowetan 2012).

Therefore, the question of how to drive enterprise development and entrepreneurship, is an urgent one (Herrington et al. 2015). The concept of entrepreneurial universities has become an area of focus in literature, as universities are seen as a catalyst for entrepreneurship intention (Du Pre 2009; van der Walt and van der Walt 2008). Students theoretically learning about entrepreneurship, give the impression that they are ready for venturing into business, yet they do not have the practical skills to be involved in it. Therefore, it becomes important to determine which factors influence the antecedents of actual entrepreneurial activity among students.

The body of knowledge in this area has consistently linked three immediate antecedents of entrepreneurial intention to entrepreneurial intention: Attitude towards entrepreneurship, subjective norm and perceived behavioural control (Ebewo 2014; Moriano et al. 2011, Ajzen 1991, 2011, 2012; Engle et al. 2010). However, the body of existing knowledge is limited in testing the mediating effect of environmental factors on both the antecedents of entrepreneurial intention and entrepreneurial intention, particularly within the South African Arts and Creative Industries.

The primary purpose of this research is to develop a model for measuring entrepreneurship intentions among art students at university. Research in this paper measures two effects: entrepreneurial environment on Entrepreneurial Intentions of art students at university, and the mediating effects of the antecedents of entrepreneurial intention (Attitude towards entrepreneurship, subjective norm and perceived behavioural control), using the Theory of Planned Behaviour, on entrepreneurial environment of Ajzen (1991; 2012). The findings of this study have important implications, as they provide managers and stakeholders of Higher Education in South Africa with a framework on entrepreneurship development within the Cultural and Creative Industries.

Research problem, question and hypotheses

Given the critical role of student entrepreneurship in attaining development goals in the context of ballooning unemployment, the research problem for the study is expressed as:

Despite the unique value that the Arts/Creative Industry possesses to stimulate job creation in South Africa, art graduates are still reluctant to consider entrepreneurship as a viable career option, even in an environment of high job scarcity.

Research Question

To resolve the above-stated research problem, the research question is formulated as follows:

To what extent do the variables in the entrepreneurial environment, in the form of Perceived Environmental Support, Perceived University Environment, and Entrepreneurship Education, affect the antecedents of entrepreneurial intention (Attitude towards entrepreneurship, subjective norm and perceived behavioural control) and entrepreneurial intention?

Research Hypotheses

To aid investigation of the stated research question, and based on the theoretical assumptions of the adopted conceptual model of entrepreneurial behaviour intentions, the following hypotheses are formulated:

H₁: Students' attitude towards entrepreneurship as a career option mediates the relationship between:

H_{1a}: Perceived environment support and Entrepreneurial Intentions

H_{1b}: Perceived university environment and Entrepreneurial Intentions

H_{1c}: Entrepreneurship Education and Entrepreneurial Intentions

H₂: Students' Perceived Entrepreneurial Abilities mediate the relationship between:

H_{2a}: Perceived environment support and Entrepreneurial Intentions

H_{2b}: Perceived University Environment and Entrepreneurial Intentions

H_{2c}: Entrepreneurship Education and Entrepreneurial Intentions

H₃: Students' subjective norm mediates the relationship between:

H_{3a}: Perceived environment support and Entrepreneurial Intentions

H_{3b}: Perceived University Environment and Entrepreneurial Intentions

H_{3c}: Entrepreneurship Education and Entrepreneurial Intentions

Literature Review

Entrepreneurship

The word 'entrepreneurship' has many different definitions, but common themes emerge (Byrd 1987; Prokopenko and Pavlin 1991; Petrin 1994; Kalitanyi and Visser 2010). The word entrepreneurship is derived from the French *entreprendre*, meaning to undertake; interpreted to mean to pursue opportunities, fulfil needs and wants through innovation (Hisrich, Peters, and Shepherd 2005). Entrepreneurship can be defined as "the mind set and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management within a new or an existing organisation" (Commission of the European Communities 2003, 5). The way in which entrepreneurs discharge these functions would often, although not exclusively, be through the creation of a new firm, as defined by Hart (2003, 5) who sees entrepreneurship essentially as the "process of starting and continuing to expand new businesses".

Entrepreneurial Intentions

According to Vesalainen and Pihkala (1999, 1) intention is defined as, "a state of mind directing a person's attention toward a specific object or path in order to achieve something." Ravis and Sheeran (2003) note that intentions summarise a person's motivation to act in a particular manner and they indicate how hard the person is willing to try and how much time and effort he or she is willing to devote in order to perform the behaviour. Entrepreneurial intention refers to the intention of an individual to start a new business (Engle et al. 2010) and it is a strong indicator of potential entrepreneurship (Malebana 2014). Entrepreneurial intentions are aimed at either creating a new venture or creating new values in existing ventures (Bird 1988). In addition, entrepreneurship intention is defined as the growing conscious state of mind that a person desires to start a new enterprise or create new core value in an existing organisation (Remeikiene, and Startiene 2013; Obschonka, Silbereisen and Schmitt-Rodermund 2010).

Theories that predict Entrepreneurial Intentions, include the Theory of Planned Behaviour (TPB) (Ajzen 1991); Theory of the Entrepreneurial Event (Shapero and Sokol 1982); the model of implementing entrepreneurial ideas (Bird 1988); and the Maximisation of Expected Utility model (Douglas and Shepherd 2002). Across all these cognition-based theories, an individual's perceptions, or cognitions, serve as the primary explanatory mechanism for the formation of behavioural intentions. However, the Theory of Planned Behaviour (Ajzen 1991) has proved to be a robust model of behavioural intention that accounts well for factors in decision-making. Unlike other models, the Theory of Planned Behaviour enables the understanding and prediction of entrepreneurial intention by considering not only personal, but also social factors such as Entrepreneurship Education and environmental factors (Sondari 2014) which are utilised in this paper.

In the TPB, entrepreneurship is viewed as a planned behaviour (Sondari 2014), which can be predicted by the intention to engage in entrepreneurial behaviour (Miller et.al. 2009). Lortie and Castogiovanni (2015) note that entrepreneurship is an intentional process in which individuals cognitively plan to carry out the behaviours of opportunity recognition, venture creation, and venture development. Hence, forming an intention to develop an entrepreneurial career is the first step in the often long process of venture creation (Gartner et al. 1994). The Theory of Planned Behaviour has emerged as an important framework for understanding, predicting, and changing human social behaviour. The Theory of Planned Behaviour outlines three key factors that influence an individual's intention to perform a given behaviour: attitude toward the behaviour, subjective norm, and perceived behavioural control.

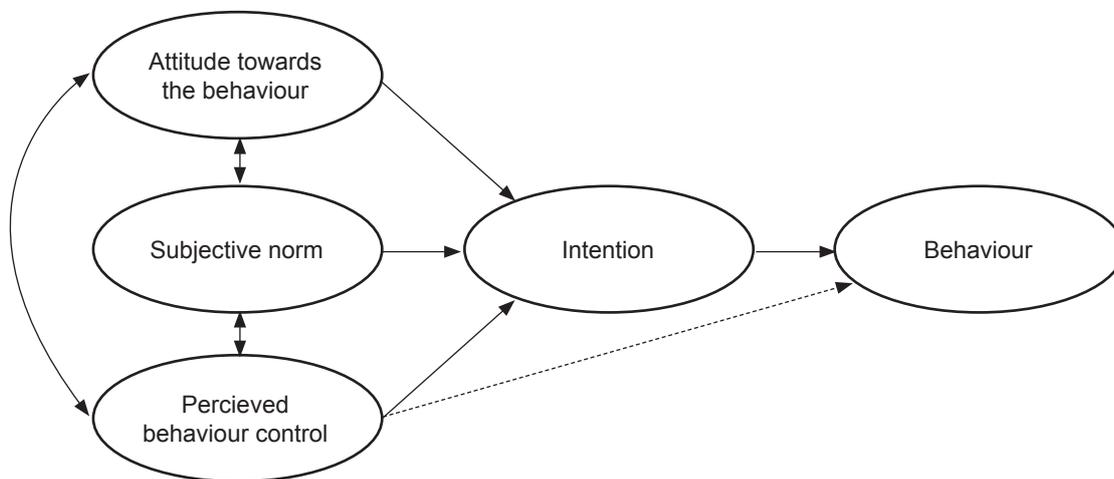


Fig. 1 Ajzen's theory of planned behaviour

The Theory of Planned Behaviour is an extension of the theory of reasoned action (Ajzen and Fishbein, 1980), made necessary by the original model's limitations in dealing with behaviours of which people have incomplete volitional control. According to Southey (2011), the theory of reasoned action provided a model used in predicting the intention to perform behaviour based on an individual's attitude toward the behaviour and his/her subjective norm. Perceived behavioural control was added to the theory of reasoned action to develop the theory of planned behaviour, in an effort to account for factors outside an individual's volitional control that may affect his/her intentions and behaviour (Ajzen 1991). According to Ajzen (2002), perceived behavioural control was based on the idea that behavioural performance is determined by both motivation (intention) and ability (behavioural control).

Entrepreneurial environment

Researchers have studied entrepreneurs' personalities and traits to distinguish them from that of others, and have focused on how environmental factors affect new venture creation rates (Sadeghi, Mohammadi, Nosrati, and Malekian 2013). In addition to personality traits, environmental factors impact on the Entrepreneurial Intentions of individuals (Sesen 2013). Environmental factors are often viewed as 'gap fillers' in the relationship between personality traits and Entrepreneurial Intentions. Since the impact of personality traits on Entrepreneurial Intentions is not linear, and the findings regarding the significance of the effects that those traits have on Entrepreneurial Intentions are often contradictory, many authors have discussed the impacts of certain environmental factors (Franco et al. 2010).

Krueger and Brazeal (1994) state that environmental factors such as contextual element or contextual factors affect entrepreneurial environment. These can have a stronger effect on entrepreneurial intention than on personality factors (Amos and Alex 2014). However, Krueger et al. (2000) say that both effects are indirect as they have an effect through attitudes (desirability) or self-efficacy (feasibility). Fini et al. (2009a; 2009b) argue that external factors in the form of 'Perceived Environmental Support', play a role in increasing entrepreneurial intention through perceived behaviour control and entrepreneurial self-efficacy.

In this paper, the external environmental factor is expressed in instrumental readiness that can directly or indirectly have an influence, through self-efficacy, on entrepreneurial intention. Fogel (2001) found that conducive entrepreneurial environment is an essential factor in the development of entrepreneurship. Environmental factors that affect the entrepreneurial intention, include legal rules, government support measures, and procedures to start a new business

(Stephen, Urbano, and Hemmen 2005). Gnyawali and Fogel (1994) grouped these entrepreneurial environments into five broad categories: government policies and procedures, socioeconomic conditions, entrepreneurial and business skills, financial assistance, and non-financial assistance. For this study, entrepreneurial environments are grouped as university environment, Entrepreneurship Education and Perceived Environmental Support.

Environmental supports are entrepreneurial activities that may also be explained by the influences of the surrounding business environment. These include government policies, characteristics of the local context (e.g. availability of logistic infrastructure, financial investors, and externalities) and more specifically, university support mechanisms that influence entrepreneurial activities (Morris and Lewis 1995; Fini et al. 2009b). Governments intervene with funding schemes, tax policies and other support mechanisms that are aimed at mitigating market inefficiencies and promoting entrepreneurship (Lerner 1999; 2005). Entrepreneurial support services, such as training opportunities, small loans and business plan competition (Foo, Wong and Ong 2005), have been identified as leading factors in the support of entrepreneurship.

Research has found that significant environmental antecedents of Entrepreneurial Intentions include access to capital (Schwarz et al. 2009), knowledge of the potential business sector (Kristiansen and Indarti 2004), social networks (Sequeira et al. 2007), and the educational system (Packham et al. 2010). Similarly, Chowdhury (2007) indicates that in developing countries additional factors such as political instability, corruption, lack of infrastructure, education and training, as well as a lack of financial support, pose severe challenges to entrepreneurial success. According to Naudé and Havenga (2004, 10), the younger generation finds it extremely difficult to access existing support mechanisms. Supporting this claim, Azapo (2008, 2-6) asserts that there is a lack of efficient support systems that are accessible to the younger entrepreneurs. Therefore, this study assumes that entrepreneurial environment (perceived environment support, perceived university environment and Entrepreneurship Education) has a direct relationship with entrepreneurial intention, and this study refers to entrepreneurial environment as perceived environment support.

Conceptual model

The conceptual model presented in Figure 2 below, presents the constructs which the paper is based upon, and indicates the relationships between these constructs. Based on the reviewed literature, entrepreneurship intention in this study is the dependent variable, and Attitude towards entrepreneurship, Subjective Norms and perceived entrepreneurial abilities are considered as mediating variables. Perceived environmental support, Entrepreneurship Education and Perceived University Environment are independent variables.

The variables of Entrepreneurship Education and Perceived University Environment are incorporated in the research model adapted from Ajzen's (2011) Theory of Planned Behaviour, as these are important exogenous factors that directly influence students' inclination towards entrepreneurship (Ajzen 1991). The research model assumes that the fact whether students have participated in Entrepreneurship Education, will reveal some clear differences among the other constructs.

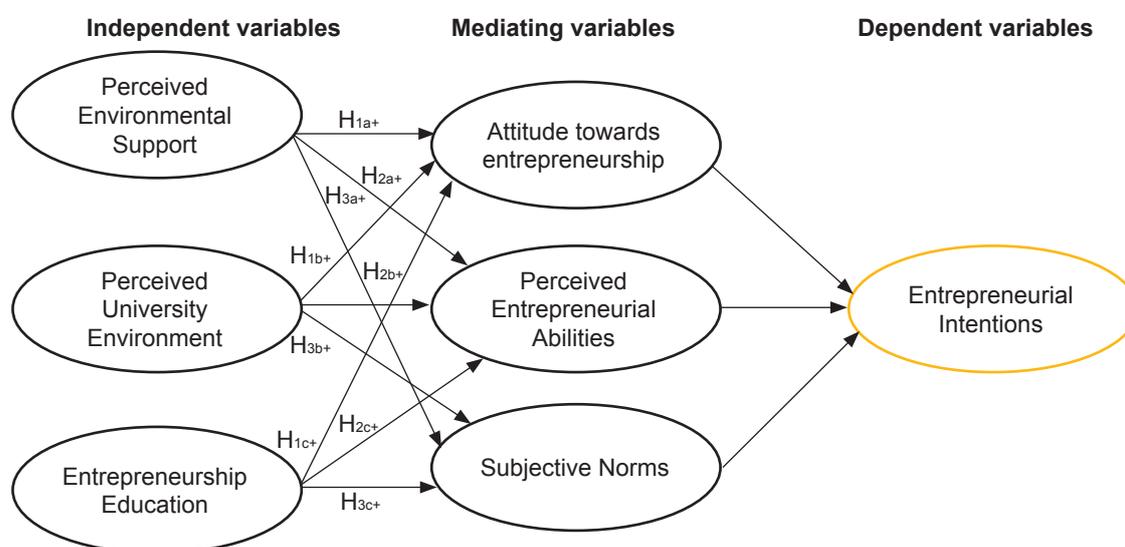


Fig. 2 Conceptual model and hypothesized relationships

The constructs derived from the Theory of Planned Behaviour have been proven to explain an important part of the variance in a wide variety of behaviour, and they have become standard incorporations in most recent Entrepreneurial Intentions frameworks (Sondani 2014). Also, since individuals do not exist and do not act in isolation, they also take environmental conditions into account in their decision-making processes; entrepreneurial intention has to be understood in the context (Schwarz, Wdowiak, Daniela, Almer-Jarz and Breitenecker 2009) and therefore entrepreneurial environmental factors are incorporated in this study's conceptual model.

Research Methodology

Research design and sampling

The nature of the study is descriptive and cross-sectional; it seeks to provide insights into the relationship between entrepreneurial environment and students' entrepreneurship intentions and perceptions. The use of a cross-sectional design is deemed the most suitable, as this technique has been used in previous studies. Simple random sampling was utilised to collect data from students studying towards an Arts and Creative Industries degree at Universities of Technology in South Africa. The choice for simple random sampling is influenced by the fact that a representative group is easily obtainable; the possibility of classification error is eliminated, least expensive and least time-consuming. Similar studies have also used student samples (Liñán, Nabi and Krueger 2013; Malebana 2014; Engle et al. 2010) as such, where precedence shows that even with a student sample, researchers can conduct good studies. Final year students studying a bachelor's degree (B-Tech) at the Faculty of Arts, Tshwane University of Technology were chosen for the research. They are considered to have gone through the entire university syllabus and therefore they can be assessed for the influence of Entrepreneurship Education on their entrepreneurial intention, and for the fact that, as graduates, they are expected to either seek gainful employment, or start a business and thus they are likely to have considered Entrepreneurial Intentions. Study of university students is appropriate to reconsider policies that favor students, and for public decision makers who develop support programmes for entrepreneurship (Nieuwenhuizen and Swanepoel 2015).

Data collection

The data collection instrument was constructed from the adapted Theory of Planned Behaviour that was used to investigate the mediating effects of the antecedents of entrepreneurship intention on entrepreneurial environment and entrepreneurship intention. The proposed conceptual model highlights seven main variables of entrepreneurship intention: Attitude towards entrepreneurship, Subjective Norms, Perceived Entrepreneurial Abilities, Perceived Environmental Support, Entrepreneurship Education and Perceived University Environment, operationalised by entrepreneurship intention. Scales developed in previous studies were adapted to suit the respective conditions in South Africa. The questionnaire comprised of two parts: the respondents' demographic and measurement scales sections. A Likert scale and structured questions were used.

Data analysis

Data from the questionnaires were captured on a spreadsheet and analysed using the Statistical Package for the Social Sciences (SPSS) version 21 and STATA v.13. Both descriptive and several multivariate techniques were used. The analysis was conducted in several stages using correlational analysis, independent t-tests, multiple regression analysis, repeated-measures, and Structural Equation Modelling (SEM) methods. Cronbach's alpha was used to measure the reliability of the multi-item scales of the questionnaire. Except for entrepreneurship intention, whose reliability score was below 0.7, all remaining scales were observed to have very high measures of reliability, exceeding 0.7 (Table 1).

Table 1 Cronbach's alpha for the sub-scales

Variable	Cronbach's Alpha	N of Items
Attitude towards entrepreneurship (ATE)	.768	3
Subjective Norms (SNorm)	.735	4
Perceived Entrepreneurial Abilities (PEAbilities)	.920	16
Immediate Entrepreneurship Intention (Intent_I)	.550	4
Future Entrepreneurship Intention (Intent_F)	.567	2
Entrepreneurship Education (EEdu)	.899	5
Perceived Environmental Support (PESup)	.808	5
Perceived University Environment (PUniE)	.735	7

Results

Demographics characteristics of the Sample

The total sample size is 150 respondents, proportionately represented as originating from: Department of Performing Arts 30 (20%), Drama & Film 37 (24.7%), Entertainment Technology 10 (6.7%), Fashion Design 18 (12%), Applied Fine Arts 23 (15.3%), and Visual Communication 32 (21.3%). Male respondents are 52% (78) and 48% (72) are female. Most respondents (88%) are below 25 years, 10% are 26– 35 years and 2% are older than 36 years. Only 93 (62%) respondents indicated they participated in Entrepreneurship Education-related subjects. Although this clearly indicates that the university is making an effort to foster entrepreneurship among its students, 38% of respondents did not consider any of their subjects as entrepreneurial education. Experience of students attending subjects they consider to be entrepreneurship-related – 20.7% Arts Administration, Producing 13.3%, Textile Design Practice 9.3%, Business Studies 7.3%, Communication 8%, and Professional Practice 3.3%.

Tests of the conceptual model

The conceptual model (Figure 2) contains the research hypotheses derived from the assumptions of the antecedents of Entrepreneurial Intentions – the independent variables (Perceived Environmental Support, Perceived University Environment and Entrepreneurship Education), mediating variables (Attitude towards entrepreneurship, Perceived Entrepreneurial Abilities, Subjective Norms) and the dependent variables (Entrepreneurial Intentions).

The model fit was assessed by Chi-square and Normed X^2/df value, coupled with other model fit indices like Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). The recommended cut-off value for the goodness of fit indices was based on Hu and Bentler's (1999) study and later Hair et al.'s (2010) recommendations. Following common practice, acceptable model fit is indicated by a value greater than 0.90 for CFI and TLI, and a value of less than 0.08 for RMSEA. However, a cut-off value close to 0.95 for TLI, CFI, and a cut-off value close to 0.06 for RMSEA are needed to support that there is a relatively good fit between the hypothesised model and the observed data (Hu and Bentler 1999; Hair et al. 2010).

The initial conceptual model (Table 2) (CFI=0.697, TLI = 0.241, RMSEA = 0.189, Chi-Square: 202.225, CD (R2): 0.407) yields an unacceptable model fit, thus some modification was made to determine a model that fit the data better. A total of ten indicators were eliminated based on modification indices. It is worth noting that the model fit was improved using a conservative strategy – none of the error terms could covary. Furthermore, the freeing of cross-loadings was also not allowed, since the existence of significant cross-loading indicated a lack of construct validity (Hair et al. 2010).

According to all fit indices, the revised model (Table 3 below) reported better values than the conceptual model, in terms of the ability to account for covariation when compared to the conceptual model, even though both models accounted for sizeable covariations. The chi-square test of difference, as well as the reported fit indices demonstrate convincingly that the revised model is superior. The revised model resulted in Chi-Square: 239.314, $p < 0.05$. With TLI of 1.019, RMSEA = 0.000 and CD (R2): 0.497. The CFI was 1.000, which indicates that 100% of the covariation in the data could be reproduced by the hypothesised model.

Table 2: Structural equation model: revised conceptual model

		Coef.	OIM Std. Err.	Z	P> z
Structural ATE <-	PEAbilities	0.1010 054	0.01947 32	5.19	0.000
	SNorm	0.2171 069	0.06941 28	3.13	0.002
	_cons	1.8762 33	1.26735	1.48	0.139

Table 2: Structural equation model: revised conceptual model (contd.)

		Coef.	OIM Std. Err.	Z	P> z
PEAbilities <-	PESup	0.4718 977	0.15688 34	3.01	0.003
	SNorm	1.1952 13	0.25700 82	4.65	0.000
		1.8762 33	1.26735	1.48	0.139
	EEdu	0.6402 408	0.19576 23	3.27	0.001
	_cons	25.735 29	4.79575 8	5.37	0.000
PESup <-	PUniE	0.5539 517	0.07393 3	7.49	0.000
	_cons	6.6238 2	1.17428 7	5.64	0.000
Intent_F <-	ATE	0.2531 943	0.06443 34	3.93	0.000
	PESup	0.0747 832	0.03659 47	2.04	0.041
	_cons	3.2339 71	0.85951 54	3.76	0.000
Intent_I <-	ATE	0.1836 547	0.09368 3	1.96	0.050
	PEAbilities	0.1265 418	0.02387 83	5.30	0.000
	_cons	4.7353 43	1.38551 1	3.42	0.001

LR test of model vs. saturated: $\chi^2(15) = 12.51$, $\text{Prob} > \chi^2 = 0.6399$

Fit statistic		Value	Description
Likelihood ratio	$\chi^2_{ms}(15)$	12.512	model vs. Saturated
	$p > \chi^2$	0.640	
	$\chi^2_{bs}(25)$	239.314	baseline vs. Saturated
	$p > \chi^2$	0.000	
Population error	RMSEA	0.000	Root mean squared error of approximation
	90% CI, lower bound	0.000	
	upper bound	0.065	
	pclose	0.882	Probability RMSEA \leq 0.05
Information criteria	AIC	6035.883	Akaike's information criterion
	BIC	6123.192	Bayesian information criterion
Baseline comparison	CFI	1.000	Comparative fit index
	TLI	1.019	Tucker-Lewis index
Size of residuals	CD	0.496	Coefficient of determination

Figure 3 below illustrates the revised conceptual model:

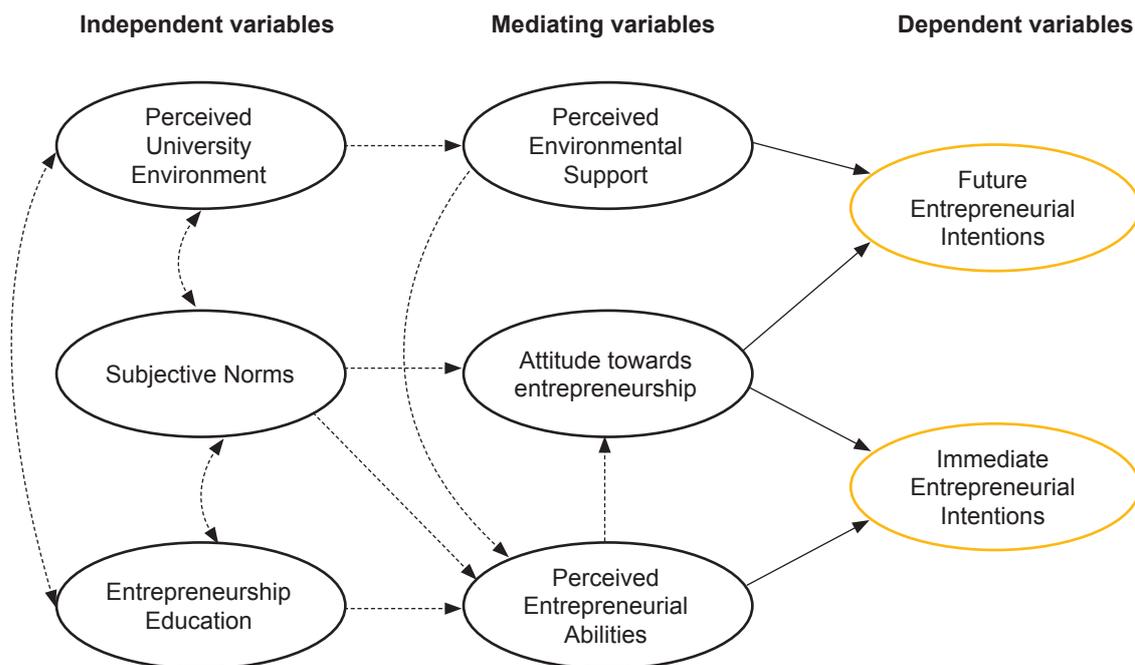


Fig. 3 Revised conceptual model

Tests of Mediating Effects of Variables on Entrepreneurial Intentions

The overall objective of the study was to investigate the mediating effects of the antecedents of entrepreneurship intention on entrepreneurial environment and entrepreneurship intention in South Africa. While this could easily be achieved by means of traditional regression analysis, such an approach fails to explain why and how the variables are related. To achieve the latter, mediation analysis (MacKinnon 1994) was used.

For Immediate Intention, complete and partial mediated effects were observed between all independent and only two AEI variables. For instance, Table 3 shows that the composite variable of Perceived Entrepreneurial Abilities had a direct high significant effect on the dependent variable [coefficient = 0.130; ($p = 0.000$)]. Additionally, its relationship with Perceived Environmental Support and Entrepreneurship Education was also highly significant at $p < 0.016$ and $p < 0.000$, respectively. Attitude towards entrepreneurship has a direct significant effect on the dependent variable [coefficient = 0.194; ($p = 0.045$)]. Its relationship with Entrepreneurship Education was also highly significant ($p < 0.000$) and against Perceived Environmental Support it was not significant ($p < 0.035$).

However, it was also observed that some mediation tests failed at the various stages of mediation analysis. For instance, because Subjective Norms yielded non-significant results ($p = 0.667$) when regressed on the immediate entrepreneurial intention, it therefore failed at Step 1. Likewise, the relationship between Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities with Perceived University Environment, yielded non-significant results ($p < 0.415$ and $p < 0.310$, respectively). Notwithstanding this, AEI (Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities) was observed to mediate the relationship between independent variables (Perceived Environmental Support and Entrepreneurship Education) and Immediate Entrepreneurial Intention.

Similarly, complete and partial mediated effects were observed between all independent and only two AEI variables for Future Intentions. As Attitude towards entrepreneurship had a direct high significant effect on the dependent variable [coefficient = 0.20; ($p = 0.008$) and Perceived Entrepreneurial Abilities [coefficient = 0.045; ($p = 0.021$)]. With non-significant results ($p = 0.810$) when regressed on the Future Entrepreneurial Intention, Subjective Norms yet again failed at Step 1. Following Steps 2 and 4 in Table 3 above, AEI (Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities) was observed to mediate the relationship between all three independent variables (Perceived Environmental Support, Perceived University Environment and Entrepreneurship Education) and Future Entrepreneurial Intention. Thus, AEI, as a mediator, allowed for meaningful investigation of relationships between independent and dependent variables.

Mediation tests results indicate that Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities, were observed to mediate the relationship between three independent variables (Perceived Environmental Support, Subjective Norm and Entrepreneurship Education) with Immediate Entrepreneurial Intention. Similarly, Attitude towards entrepreneurship and Perceived Environmental Support was observed to mediate the relationship between four independent variables (perceived entrepreneurial abilities, Perceived University Environment, subjective norm and Entrepreneurship Education) and future entrepreneurial intention.

Discussion

Given that Antecedents of Entrepreneurship Intention (AEI) mediates between entrepreneurial intention and the antecedent predictors, it therefore implies that AEI has a positive relationship ($p < 0.05$) with the former of the mediation test. The latter findings are consistent with previous studies, which found AEI to be a reliable driver of students' entrepreneurial intention (Ajzen 2012; Engle et al. 2010). Hence, this provides further reassurance that its inclusion in the conceptual model was worthwhile. Consequently, AEI as a mediator, allowed for meaningful investigation of relationships between independent and dependent variables.

The structural model output in Tables 2 and 3, as well as the results of tests of mediation, indicate that Hypotheses 1 and 2 are generally supported. Attitude towards entrepreneurship as a career option and Perceived Entrepreneurial Abilities of students both influence Entrepreneurial Intentions positively (that is immediate and future intentions). With the exception of Perceived University Environment where Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities yielded non-significant results ($p < 0.415$ and $p < 0.310$ respectively), both Hypotheses 1 and 2 can be accepted at a $0.000 \leq p < 0.035$ significance level. These findings correspond with past research (Ajzen 2012; Movahedi and Fathi 2011). Furthermore, attitude mediates the relationship between entrepreneurial self-efficacy and intentions, which was also found in the study of Izquierdo and Buelens (2011).

This confirms that attitudes can be viewed as the steppingstone to Entrepreneurial Intentions. Thus, to increase the level of entrepreneurial initiative among students, it is necessary to increase positive attitudes towards entrepreneurship. Research has shown that an individual's behaviour is highly influenced by a confidence in their ability to perform the necessary behaviour to be successful (Swann et al. 2007). The study results correspond to past empirical studies (Chen et al. 1998; Zhao Hills and Seibert 2005) that individuals with high entrepreneurial self-efficacy are more likely to be entrepreneurs than those with low entrepreneurial self-efficacy. Therefore, the perceptions of students as to whether they intend to start a business, are greatly influenced by whether they think they have the necessary capability to do so (Herrington et al. 2015).

Subjective Norms yielded non-significant results ($p = 0.667$; $p = 0.810$) when regressed on the immediate entrepreneurial intention and future entrepreneurial intention, respectively. Therefore, there is no direct relationship between Subjective Norms and Entrepreneurial Intention, which corresponds to findings in past research (Krueger et al. 2000). However, other studies that found a significant impact of Subjective Norms on intentions (Engle et al. 2010; Kolvereid 1996) propose that one explanation could be differences in the measurement of Subjective Norms across studies. Notwithstanding, the revised model suggests that Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities mediates the relationship between Subjective Norms and entrepreneurial intention (Ajzen 2012). Therefore, based on the evidence from the data analysis with regards to Subjective Norms, Hypothesis 3: 'Students' subjective norm positively mediates the relationship between, Perceived Environment Support, Perceived University Environment, Entrepreneurship Education and Entrepreneurial Intentions', is rejected.

The research question seeks to measure the effects of entrepreneurial environment on art students' Entrepreneurial Intentions. Overall, results observed in this study confirmed that Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities are indeed an important determinant for entrepreneurial intention. Upon the revision of the structural model (above) the following were observed:

- i. Environment support affects Entrepreneurial Intention as it gives meaning to University Environment and Entrepreneurship Abilities. It is therefore concluded that the increased belief in environment support factors, such as favourable government policies and procedures (regulatory requirements and labour laws), entrepreneurial and business skills programmes, financial assistance, and non-financial assistance, would positively influence and increase art students' entrepreneurial intention.
- ii. University environment has a great effect on entrepreneurial intention, thus increase in perceived environment support might influence students to be entrepreneurs. Enterprise education should be compulsory.
- iii. Enterprise education develops students' entrepreneurship abilities and thus high entrepreneurial intention, with students who will be business developers in the changing business environment (Herrington et al, 2015; Volkman et al, 2015). Participation in Entrepreneurship Education indirectly influences students, since they learn how to identify opportunities and how to start up a business.

Theoretical implications

It is also interesting to note that Subjective Norms have no direct relationship with entrepreneurial intention. However, the revised model suggests that Attitude towards entrepreneurship and Perceived Entrepreneurial Abilities mediate the relationship between Subjective Norms and entrepreneurial intention. Furthermore, the research notes the difference observed between students' *immediate* entrepreneurial intention (within 12 months after graduation) and *future* entrepreneurial intention ($5 \leq \text{years} < 10$ after graduation). In addition, this study contributes to the literature of the Theory of Planned Behaviour, by concluding that perceived environment support should be included as an important variable and predictor of Entrepreneurial Intentions. Lastly, participation in Entrepreneurship Education (which is correlated with university environment) positively influence students' immediate intentions to become an entrepreneur by increasing their entrepreneurial abilities (self-efficacy).

Managerial implications

Practical implications for educators

Enterprise education should be made more practical than theoretical for students to know what the entrepreneurship process is like and learn to develop their ventures through sustainable strategies. Scholl curriculum should include a project or practice-based learning process, rather than theory, to make learning relevant to a range of applications. Hence, this will develop venture creation skills.

Practical implications for Tshwane University of Technology

It is recommended that Tshwane University of Technology should consider implementing school programmes that raise awareness for entrepreneurship, as well as redesigning their curriculum to stimulate a conducive environment for developing positive entrepreneurial attitudes and abilities. Students training in management, finance and marketing competencies are essential.

Furthermore, if all students are to be given the opportunity to develop a basic level of entrepreneurial skills, a fresh approach is needed to deliver the competencies and attitudes needed within the Arts programme. This links directly to and build upon the entrepreneurial content and gets students to think creatively about the applications of their talents. By assimilating entrepreneurial ways of thinking throughout programmes, students can 'switch on' to entrepreneurship and become more readily able to recognise the usefulness of existing extracurricular support, entrepreneurship and business subjects. The key advantage is that all students benefit from developing individual capacity, regardless of their initial level of interest in entrepreneurship.

The university through its Arts Incubator, should proactively drive the promotion of entrepreneurial concepts within the university community. As a unit that incorporates real-life business training with theory, the Arts Incubator should establish a venture accelerator programme by providing seed funding, enterprise challenges and entrepreneurship mentorship that proactively support students' entrepreneurial activity. The Incubator should become a catalyst for entrepreneurship development within the Arts, Culture and Creative Industries, by providing access to infrastructure, rehearsal spaces, recording studios, workshops and shared office space, as well as launching of Arts and Culture start-ups. The Incubator should simplify the access to government assistance in accessing credit, training, business advisory services and business support services.

Practical implications for policymakers

Policymakers need to understand that government initiatives will affect business formations only if these initiatives affect attitudes and entrepreneurial abilities which could motivate students to start enterprises. This study found that environmental conditions are one of the main factors that is strengthening or weakening intentions of prospective entrepreneurs. Therefore, it is important to develop conducive environments for entrepreneurship to promote entrepreneurial intention. An environment perceived to be more supportive, will increase entrepreneurial self-efficacy, because individuals assess their entrepreneurial capacities about perceived resources, opportunities, and obstacles existing in the environment. The agencies that play a major role in promoting entrepreneurship must recognise the need to provide entrepreneurship development support to the Arts and Cultural Sector. Students embarking on an entrepreneurial career path should have greater access to government financial support throughout their study. Private sector investment initiatives in entrepreneurial education should also be bolstered, and in this regard the government should provide incentives to the private sector enterprises that support quality entrepreneurial programmes.

Limitations and suggestions for future research

The research is limited to an exploration of Arts and Creative Industries students in the Tshwane University of Technology. Consequently, findings and results may not necessarily be generalisable to the effects of entrepreneurial environment on students' entrepreneurship intention outside of TUT. The study was based on cross-sectional data and represents a snapshot of the present students' views, which limits the ability to determine causal effects between the variables. Additionally, this study focuses on the prediction of Entrepreneurial Intentions and not the realisation of these intentions (starting a new business). Future research is recommended to fully evaluate the effectiveness of subject components of Entrepreneurship Education in relation to their impact on students' Attitude towards entrepreneurship, Perceived Entrepreneurial Abilities and Entrepreneurial Intentions. Lastly, further studies should also incorporate personal norms as an additional predictor to enhance the normative component of Entrepreneurial Intention. This is to assess whether an individual's motivation is integrated into his/her cognitive structure (e.g. core self) or whether an individual is motivated by external reasons (e.g. social influence), as this is expected to provide a more comprehensive understanding of the impacts of motivational factors on Entrepreneurial Intentions.

Conclusions

The objective of the study was to investigate and attempt to answer the following question: To what extent do the variables in the entrepreneurial environment, in the form of Perceived Environmental Support, Perceived University Environment, and Entrepreneurship Education, affect the antecedents of entrepreneurial intention

(Attitude towards entrepreneurship, subjective norm and perceived behavioural control) and Entrepreneurial Intention? Evidence collected produced some interesting findings. Firstly, entrepreneurial environment (perceived environment support) directly affects future Entrepreneurial Intentions and it also mediates the relationship between Perceived University Environment, Perceived Entrepreneurial Abilities and immediate Entrepreneurial Intentions. In addition, Perceived University Environment was found to indirectly impact Entrepreneurial Intentions through entrepreneurial environment. Participation in Entrepreneurship Education (which is correlated with university environment) was also observed to positively influence students' immediate intentions to become an entrepreneur by increasing their entrepreneurial abilities (self-efficacy). Subjective norm was observed to be an insignificant predictor of entrepreneurial intention. Finally, a notable difference was observed with entrepreneurial intention, categorising as *immediate* entrepreneurial intention (within 12 months after graduation) and *future* entrepreneurial intention ($5 \leq \text{years} < 10$ after graduation).

Based on these results, it is recommended that: (a) Investment is required in entrepreneurship curriculum innovation. Applied Entrepreneurship and Business Management embedded curricula should be developed in partnership with industry; (b) Policymakers should consider the development of a coherent national policy framework that addresses entrepreneurship for the arts/creative industries sector. This would create the enabling environment for the evolution of Higher Education Institutions from merely teaching, learning and researching, to becoming drivers for creative entrepreneurship; (c) Investment should take place in creative infrastructure to create incentives for the development of the sector. The Higher Education Innovation Fund as an investment tool for the art/creative industries sector should be developed. Art Incubator programmes should bring coherence to the fragmented landscape of support and build on the activities and expertise of different agencies, institutions and initiatives.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2): 179-211.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4): 665-683.
- Ajzen, I. (2011). Behavioral interventions: Design and evaluation guided by the theory of planned behavior. In *Social Psychology for Program and Policy Evaluation*, edited by M.M. Mark, S.I. Donaldson and B.C. Campbell, 74-100. New York: Guilford
- Ajzen, I. (2012). The theory of planned behavior. In *Handbook of Theories of Social Psychology*, edited by P.A.M. Lange, A.W. Kruglanski and E.T. Higgins, 1: 438-459. London, UK: Sage
- Ajzen, I., and Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs: Prentice Hall.
- Amos, A., and Alex, K. (2014). Theory of planned behaviour, contextual elements, demographic factors and entrepreneurial intentions of students in Kenya. *European Journal of Business and Management*, 6 (15):167.
- Azapo. (2008). Public hearing: National youth development agency bill. Accessed November 10, 2015. <http://www.pmg.org.za/report/20081117-national-youth-development-agency-bill>.
- Baron, R.A. (2012). *Entrepreneurship An Evidence-based Guide*. Cheltenham: Edward Elgar Publishing Limited.
- Bird, B. (1988). Implementing entrepreneurial ideas: the case for intentions. *Academy of Management Review*, 13:442-454.
- Byrd, W.A. (1987). *Entrepreneurship, capital and ownership*. Washington, D.C.: The World Bank.
- Chowdhury, M.S. (2007). Overcoming entrepreneurship development constraints: the case of Bangladesh. *Journal of Enterprising Communities: People and Places in the Global economy*, 1(3):240-251.
- Cisac. (2014). *The Creative Industries and the BRICS. A review of the state of the creative economy in Brazil, Russia, India, China and South Africa*. International Confederation of Societies of Authors and Composers (CISAC). Accessed March 10, 2016. <http://www.cisac.org/CisacPortal/cisacDownload-File.do?docId=26900>.
- Commission of the European Communities. (2003). *Green paper - entrepreneurship in Europe COM27 Final*. Accessed February 8, 2014. http://eur-lex.europa.eu/LexUriServ/site/en/com/2003/com2003_0027en01.pdf
- Douglas, E.J., and Shepherd, D.A. (2002). Self-employment as a career choice: attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 18(3): 5-10.

- Du Pre. (2009). *The place and role of Universities of Technology in South Africa*. Bloemfontein, Durban University of Technology. South African Technology Network.
- Ebewo, P.E. (2014). Effects of entrepreneurship education on students' entrepreneurial intentions: a case of Botswana. *Magister Technologiae: Entrepreneurship*. Pretoria, Tshwane University of Technology.
- Engle, R. L., Dimitriadis, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., and Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behaviour. *International Journal of Entrepreneurial Behaviour and Research*, 16(1): 35-57.
- Fini, R., Grimaldi, R., and Sobrero, M. (2009a). Factors Fostering Academics to Start up New Ventures: an Assessment of Italian Founders' Incentives. *Journal of Technology Transfer*.
- Fini, R., Grimaldi, R., Marzocchi, R., and Sobrero, M. (2009b). The foundation of entrepreneurial intention. *Summer Conference*. Copenhagen Business School.
- Fogel, G. (2001). An analysis of entrepreneurial environment and enterprise development in Hungary. *Journal of Small Business Management*, 39(1):103-109.
- Foo, M. D., Wong, P. K., and Ong, A. (2005). Do others think you have a viable business idea? Team diversity and judges' evaluation of ideas in a business plan competition. *Journal of Business Venturing*, 20(3): 385-402.
- Franco, M., Haase, H., and Lautenschlager, A. (2010). Students' intrapreneurial intentions: an inter-regional comparison. *Education and Training*, 52(4): 260-275.
- Gartner, W.B., Shaver, K.G., Gatewood, E.J., and Katz, J. (1994). Finding the entrepreneur in entrepreneurship. *Entrepreneurship Theory and Practice*, 18(3): 5-10.
- Gnyawali, D.R., and Fogel, D.S. (1994). Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship Theory and Practice*, 18(4): 43-62.
- Gregory, M. (2011). *The strategic and planning value of institutional research in tracking graduate employment*. British Council and the Association of the Commonwealth Universities.
- Hair, J., Black, B., Babin, B., and Anderson R. (2010). *Multivariate Data Analysis*. 7th edition. Upper Saddle River, NJ, USA: Pearson Prentice Hall.
- Hart, D.M. (2003). *Entrepreneurship policy: what it is and where it came from*. Cambridge: Cambridge University Press.
- Herrington, M., and Turton, N. (2012). *Global Entrepreneurship Monitor 2012 South Africa*. Cape Town: University of Cape Town Centre for Innovation and Entrepreneurship.
- Herrington, M., Kew, J., and Kew, P. (2015). *2014 GEM South Africa Report: South Africa: The crossroads – a goldmine or a time bomb?* University of Cape Town, Cape Town South Africa.
- Herrington, M., Kew, J., Simre, M., and Turton, N. (2011). *Global Entrepreneurship Monitor South Africa*. Cape Town: University of Cape Town Centre for Innovation and Entrepreneurship.
- Hisrich, R., Peters, M., and Shepherd, D. (2005). *Entrepreneurship*. 6th ed. New York: McGraw-Hill.
- Hu, L., and Bentler, P. M. (1999). Cut off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*. 6:1-55.
- Jääskeläinen, M. (2000). *Entrepreneurship and economic growth*. Helsinki: Institute of Strategy and International Business.
- Kalitanyi, V., and Visser, K. (2010). African immigrants in South Africa: Job takers or job creators? *South African Journal of Economic and Management Sciences*, 13(4):376-390
- Kew, J. (2012). A co-ordinated approach critical to promote youth entrepreneurship. *Opinion Obstacles and Opportunities for Youth Entrepreneurship*: 33-37.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship: Theory and Practice* 21(1): 47-57.
- Kristiansen, S., and Indarti, N. (2004). Entrepreneurial intention among Indonesian and Norwegian students. *Journal of Enterprising Culture*, 12(1):55-78.

- Lerner, J. (1999). The Government as Venture Capitalist: The Long-Run Impact of the SBIR Program. *Journal of Business*, 72(3): 285–318.
- Lerner, J. (2005). The university and the start-up: lessons from the past two decades. *Journal of Technology Transfer*, 30(1–2): 49–58.
- Liñán, F., Nabi, G., and Krueger, N. F. (2013). British and Spanish entrepreneurial intentions: a comparative study. *Revista de Economía Mundial*, 33: 73–103.
- Lortie, J., and Castogiovanni, G. (2015). The theory of planned behavior in entrepreneurship research: what we know and future directions. *International Entrepreneurship and Management Journal*, 11(4), 2015/12/01:935-957.
- MacKinnon, D. P. (1994). *Analysis of Mediating Variables in Prevention and Intervention Research*. In *Scientific Methods for Prevention Intervention Research* edited by A. Cazares and L. A. Beatty, 94-3631: 127-154. Rockville, MD, National Institute on Drug Abuse.
- Makgosa, R. and Ongori, H. (2012). Perceptions of Entrepreneurial Behaviour in Botswana. *International Journal of Learning and Development*, 2(3):247-259.
- Malebana, J. (2014). Entrepreneurial intentions of South African rural university students: A test of the theory of planned behaviour. *Journal of Economics and Behavioral Studies*, 6(2):130-143.
- Miller, B.K., Bell, J.D., Palmer, M., and Gonzales, A. (2009). Predictors of Entrepreneurial Intentions: A Quasi-Experiment comparing Student Enrolled in Introductory Management and Entrepreneurship Classes. *Journal of Business and Entrepreneurship*, 21(2).
- Moriano, J.A., Gorgievski, M., Laguna, M., Stephan, U., and Zarafshani, K. (2011). A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development* (in press).
- Morris, M., and Lewis, P. (1995). The determinants of entrepreneurial activity. *European Journal of Marketing*, 29(7): 31–48.
- Movahedi, R., and Fathi, H. (2011). Assessing agricultural students' attitude towards entrepreneurship. *International Journal of Agriculture: Research and Review*, 1(4):168-173.
- Naudé, W.A., and Havenga, J.J.D. (2004). Overview of African entrepreneurship and small business research. *Journal of Small Business and Entrepreneurship*, 18(1):101-120.
- Ndedi, A.A. (2013). Challenges and perspectives facing the development of entrepreneurship education and training in South Africa. *World Journal of Entrepreneurship, Management and Sustainable Development*, 9(2/3):126-132.
- Nieuwenhuizen, C., and Swanepoel, E. (2015). Comparison of the entrepreneurial intent of master's business students in developing countries: South Africa and Poland. *Acta Commercii* 15 (1):1-10.
- Obschonka, M., Silbereisen, R. K., and Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior*, 77(1):63-72.
- Packham, G., Jones, P., Miller, C., Pickernell, D., and Brychan, T. (2010). *Attitudes towards entrepreneurship education: a comparative analysis*. *Education and Training*, 52(8/9):568-586.
- Petrin, T. (1994). *Entrepreneurship and supporting institutions: An analytical approach: Entrepreneurship as an economic force in rural development*. Herrsching, Germany.
- Prokopenko, J., and Pavlin, I. (Eds.). (1991). *Entrepreneurship development in public enterprises*. Geneva: International Labour Office, Management Development Series No. 29: 1-199
- Remeikiene, R.D., and Startiene, G. (2013). Explaining entrepreneurial intention of university students: The role of entrepreneurial education. *International Proceedings of the Management, Knowledge and Learning International Conference 2013*, 299-307.
- Rivis, A., and Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology*, 22(3), 2003/09/01:218-233.
- Sadeghi, M., Mohammadi, M., Nosrati, M., and Malekian, K. (2013). The Role of Entrepreneurial Environments in University Students Entrepreneurial Intention. *World Applied Programming*, 3(8):361-366.
- Schwarz, E.J., Wdowiak, M.A., Almer-Jarz, D.A., and Breitenacker, R.J. (2009). The effects of attitudes and perceived environment conditions of students' entrepreneurial intent An Austrian perspective. *Education and Training*, 51(4):272-291.

- Sequeira, J., Mueller, S.L., and Mcgee, J.E. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, 12(3):275-293.
- Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education and Training*, 55(7):624-640.
- Shapero, A., and Sokol, L. (1982). Social Dimensions of Entrepreneurship. In *The Encyclopaedia of Entrepreneurship* edited by C. Kent, D. Sexton and K. Vespers. Englewood Cliffs: Prentice-Hall.
- Sondari, M.C. (2014). Is Entrepreneurship Education Really Needed?: Examining the Antecedent of Entrepreneurial Career Intention. *Procedia - Social and Behavioral Sciences*, 1152(21):44-53.
- Southey, G. (2011). The Theories of Reasoned Action and Planned Behaviour Applied to Business Decisions: A Selective Annotated Bibliography. *Journal of New Business Ideas and Trends*, 9(1): 43-50.
- Sowetan. (2012). Universities produce wrong kind of graduates: analyst. *Sowetan*. Johannesburg.
- Statistics South Africa. (2015). Quarterly Labour Force Survey, Quarter 4: 2015. Statistical Release P0302. Accessed: February 28, 2016. http://www.statssa.gov.za/?page_id=1854&PPN=P0211&SCH=6621
- Stephen, F., Urbano, D., and Hemmen, S. (2005). The impact of institutions on entrepreneurial activity. *Managerial and Decision Economics*, 26:413-419.
- van der Walt, R., and van der Walt, S.J. (2008). Entrepreneurial training for Human Resources Practitioners and potential services rendered to small enterprises. *Southern African Journal of Entrepreneurship and Small Business Management* 1:21-34.
- Vesalainen, J., and Pihkala, T. (1999). Entrepreneurial identity, intentions and the effect of the push-factors. *Academy of Entrepreneurship Journal*, 5 (2):1-24.
- Volkman, C., Wilson, K.E., Mariotti, S., Rabuzzi, D., Vyakarnam, and Sepulveda, A. (2009). Educating the next wave of entrepreneurs: Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century- a report of the Global Foundation Initiative. *World Economic Forum*, 1-184.