AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

ENVIRONMENTAL FACTORS AND THE FORMATION OF STUDENTS' ENTREPRENEURIAL INTENTIONS: PERSPECTIVES FROM ZAMBIA

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ABSTRACT

The purpose of this study was to establish the influence of entrepreneurial environmental factors on the formation of students' entrepreneurial intention. To address and answer the research question which reads: "To what extent do entrepreneurial environmental factors in the form of innovativeness, proactivity and entrepreneurship education affect the formation of student's entrepreneurial intentions" The conceptual model based on the Theory of Planned Behaviour (TPB) was employed. The primary data was collected from a sample of 380 Mulungushi University (MU) students in Zambia using a closed-ended self-administered questionnaire. For data analysis, SPSS v.21, and STATA 14 were utilised to generate descriptive statistics. Proactivity as an entrepreneurial competency was observed to affect immediate entrepreneurial intentions only while entrepreneurship education was observed to affect both immediate and future entrepreneurial intentions. Innovativeness yielded non-statistical significance on both immediate and future entrepreneurial intentions. This study contributes to the existing body of literature by highlighting the difference between immediate and future entrepreneurial intentions and the importance of personality factors and entrepreneurship education in the formation of students' entrepreneurial intentions. Based on the above findings, recommendations have been made regarding the revision of entrepreneurship education to stimulate entrepreneurial competencies among students.

Keywords: Entrepreneurship, Proactivity, Innovativeness, Entrepreneurial Environment, Entrepreneurial Orientation, Entrepreneurship Education.

Introduction

Given the important role entrepreneurship plays in economic development and the creation of employment, developing economies have given the promotion of entrepreneurship a national priority. This is particularly true for developing countries where entrepreneurship needs to encourage and supported because it represents what is described as the basis for economic development (Marques et al., 2018). Entrepreneurship plays a vital role in addressing the problem of unemployment by stimulating entrepreneurial activities (Chiang and Yan ,2011). In the case of Zambia, the unemployment rate was at 37.3% mostly the youths aged between 15 to 35 years (Labour Force Survey, 2020). Consequently, Valliere (2015) emphasised the need for the government to collaborate with the private sector to enhance the

capacity to develop a policy aimed at creating formal employment for the youths. Entrepreneurship activities especially among graduates have been instrumental in promoting sustainable economic expansion through job creation and an increased tax base (Nuwagaba, 2015). Given that entrepreneurship education (EE) and the supportive university environment (Ge and Li, 2015; Mustafa, Hernandez, Mahon and Chee, 2016; Marques et al., 2018) are instrumental in encouraging graduates to engaged in entrepreneurial activities are deserving for further investigation. These are some of the factors echoed in the literature to promote the formation of entrepreneurial intentions (EIs) among students (Gelaidan and Abdullateef, 2017).

Studies on the formation of EIs have linked environmental factors to entrepreneurial intentions (Salati Marcondes de Moraes, Lizuka and Pedro, 2018; Ebewo, 2017; Gelaidan and Bdullateef, 2017; Cieślik and Van Stel, 2017; Farah, Mamun, Binti, Nawi, Nazri and Zakaria, 2016; Tran and Von Korflesch, 2016; Mustafa et al., 2016). However, there is a need to understand what makes a person develop an interest in entrepreneurship and engage in it (Koe, 2017). According to Ferreire et al (2012), EE enhances students' development of personal entrepreneurial skills and provides them with competencies such as proactiveness (PRO) and innovativeness (INN). It was observed that personality factors and contextual factors have been treated insolation of each other in several studies on EI. According to Mustafa et al. (2016), antecedents of EIs should not be treated as different factors but should be included in one comprehensive model. Additionally, few studies have been done to examine the influence PRO and INN and EE on students' EIs, particularly in a Zambian context. Lastly, the focus of these studies has been on innovation-driven or developed countries (Valliere, 2015; Matlay, 2014) hence the need to test, modify and replicate the theories of entrepreneurship and intent in developing countries, Zambia (Martens, Lacerda, Belfort and Rodrigues De Freitas, 2016; Valliere, 2015). A study conducted by Bolton (2012) emphasised validating the constructs of entrepreneurial orientation (EO) on university students in different countries with different age groups in future research. Hence, this forms the rationale for this research.

Theoretical Framework

Entrepreneurship and TPB

Over the years, entrepreneurship as a field of study has gained significant attention (Raposo and do Paço, 2011). Various scholars hold differing beliefs about what entrepreneurship entails and who constitutes an entrepreneur which makes it difficult to have an all-inclusive definition of entrepreneurship (Shane and Venkataraman, 2000; Gartner, 2001). The process of entrepreneurship is driven by three elements: the entrepreneur's identified opportunities and the configuration of resources required to exploit these opportunities (Ireland, Covin, and Hornsby, 2005; O'Connor, 2013). Therefore, a person is perceived to be an entrepreneur if he or she can produce new products and services, innovative technologies, create

employment, and influence and contribute to the country's economic development.

For this study, the definition proposed by Acs and Szerb (2010) was adopted as the unique association of individual attitudes, activities and aspirations. The decision to adopt this definition was based on the premise that entrepreneurship, as a career option is also a way of life and students venturing into entrepreneurship, are well equipped with business knowledge and possess the ability to analyse the environment, identify opportunities, and overcome the challenges. To advance scholarship in the field of entrepreneurship, several seminal theories have been applied to gain more insight into entrepreneurship actions and how these actions can be enhanced and sustained. Literature on entrepreneurship has shown that intentions have been regarded as one of the predictors of one's action to become an entrepreneur (Bird, 1988; Krueger, Reilly and Carsrud, 2000). In trying to appreciate the determinants of an individual's EIs, several theoretical approaches have been applied by scholars (Mustafa et al., 2016). These are validated theories that explain the development of entrepreneurship intentions among students.

EI models have been included in this study because they explain how entrepreneurial intentions influence the creation of new ventures. The primary theories are the Theory of Planned Behaviour (TPB), Theory of Planned Behaviour Entrepreneurial Model (TPBEM), Entrepreneurial Events Model (EEM), and Entrepreneurial Intention Model (EIM) (Ajzen, 1991, 2011; Krueger and Casrud, 1993; Shapero and Sokol, 1982; Krueger et al, 2000; Boyd and Vozikis, 1994). Recent studies on EIs have described these theories as dominant models of EIs (Tran and Von Korflesch, 2016).

The TPB, when applied to entrepreneurs, helps understand the effects and antecedents of entrepreneurial intent (Valliere, 2015). TPB is founded on the principle that a person's behaviour is a planned activity and is influenced by the intentions towards that behaviour (Fishbein and Ajzen, 1975). TPB predicts the interactions of activities from a personal belief concerning the environment to attitudes towards the desired future state, intention to act and the behaviour being exhibited (Valliere, Gedeon and Wise, 2014). Heuer and Kolvereid (2013) concluded that entrepreneurship behaviour is caused by entrepreneurial intentions which are also affected by three antecedents, namely: attitude (A) the degree to which an individual has a negative or positive assessment of the behaviour being considered (Alok, Kocherlakota and Beernelly, 2017); subjective norms (SN) the second predictor of intentions or the perceived social pressure to act in a certain way (Elali and Al-Yacoub, 2016). and perceived behavioural control (PBC) personal conviction on whether entrepreneurial activities can be achieved with or without greater effort (Elali and Al-Yacoub, 2016).

Although TPB has received criticism about limited validity, it is still regarded as a validated model to use in research on the formation of entrepreneurial intent (Yıldırım, Çakır and Aşkun, 2016). Furthermore, it is regarded as the best primary theories-driven model that explains

the formation of entrepreneurial intentions, especially in students (Al et al., 2017). A refined framework is used to understand and predict EIs of people without focusing on personal, demographic, environmental and social factors as antecedents of entrepreneurial behaviour (Krueger, Reilly and Carsrud, 2000; Ozaralli and Rivenburgh, 2016).

TPB is regarded as an appropriate framework for predicting human behaviour as it enables one to understand and explain the formation of entrepreneurial intentions (Henley, Contreras and Espinosa, 2017). Farhah et al (2017) suggested that TPB is suitable for studies that focus on analysing human action as is the case for this study.

Therefore, TPB remains the choice for this study, and it was employed to facilitate the comprehension of the mediating effects of EO on the interaction between the entrepreneurial environment and EIs of Zambian students.

Entrepreneurial intentions

EI is one's interest in undertaking entrepreneurship as a career with the plan of establishing an enterprise in the future (Alok, Kocherlakota and Beernelly, 2017). In the recent past, studies focusing on the concepts of EI and its antecedents have gained popularity among scholars for their ability to predict entrepreneurial behaviour and demonstrate how EIs are formed (Fayolle and Gailly, 2015). According to Do and Dadvari (2017:2), EI is defined as an "attentive state of mind that directs personal attention and experience towards planned entrepreneurial behaviour". An intention is a signal that an individual is prepared and willing to do something with the requisite effort to exhibit a certain behaviour (Islamic, 2018). Accordingly, the intention is one's willingness to perform a task and engage in certain behaviour. It serves as the drive for an individual to perform a certain action. On the other hand, EI is also described as how far an individual is willing to engage in something and the level of energy required to exhibit the desired behaviour (Mwiya, Wang, Kaulungombe and Kayekesi, 2018). EI is about one's attitude towards engaging in entrepreneurial activities (Kuehn, 2008).

EO and EI

According to Jalali (2012), studies on EO have focused on two levels of analysis: first, at an organisational level and second, at an individual level. The analysis at the individual level is because an organisation, whether a private or public entity, is regarded as an outcome of individual actions (Bolton, 2012). A person can conceptualise a business idea that can be actualised and transformed into a bigger corporation. A meta-analysis study conducted by Jalali (2012:12) defined EO at an organisational level as "the strategy-making process that provides an organisation with a basis for entrepreneurial decisions and actions"

The three dimensions of this definition coined by Miller (1983) RST, INN and PRO have been used in the existing body of literature to determine the EO of business organisations (Taatila and Down, 2012). However, in this study only two dimensions namely PRO and INN were employed.

Innovativeness: Is connected to entrepreneurship due to the ability of the construct to predict the formation of EIs (Melati, Arief and Batswara, 2018). The

conceptualisation of business ideas and their actualisation requires considerable creativity through trials and experiments. In this research, INN is defined as the student's ability to generate new business ideas or improve on existing ones and create new business ventures. INN, as an attribute, enables entrepreneurs to identify problems, develop solutions and create new products and services (Melati et al., 2018). It is a powerful predictor of students' EIs and enables them to persist in entrepreneurial behaviour. Syed, Buttler, Smith and Cao (2020) found INN to be a director predictor of students' EIs and subsequent behaviour. Thus, the hypotheses were formulated as follows:

H_a: *Student's INN ability as an entrepreneurial competency has a positive effect on the formation EIs*

Proactivity: Defined as "a dispositional construct that identifies differences among people in the extent to which they take action to influence their environment (Bateman and Crant, 1983: 103). In this study, PRO is defined as a student's ability to seek business opportunities or have the foresight and create new ventures ahead of the competition. Several previous studies have associated students' PRO behaviour with EIs (Prabhu, McGuire, Drost and Kwong, 2012; Mahon and Chee, 2016; Mustafa, 2016; Israr and Hashim, 2017; Kumar and Shukla, 2019; Munir, Jianfeng and Ramzan, 2019), and have demonstrated that the propensity to act influences students' EI which results in new venture creation. This supports the inclusion of proactivity in this study. With this background, the hypotheses:

H_b: *Student's PRO ability as an entrepreneurial competency has a positive effect on the formation of EIs*

EE and EIs

Since the introduction of the time entrepreneurship courses in 1947 at Harvard Business School, EE has received much attention in most parts of the world (Nabi, Liñan, Krueger and Walmsely, 2017). A study conducted by Westhead and Solesvik (2016) emphasises the importance of EE in enhancing students' enterprise knowledge and skills required to collect and analyse information necessary for new business venture creation. The recognition is reflected in the adoption of EE by several universities worldwide to promote and stimulate entrepreneurial activities and behaviour.

However, studies on the association between EE and EIs have revealed mixed results suggesting positive and negative findings (Volery, Muller, Oser, Naepflin and Del Rey, 2013; Bae and Patterson, 2014; Rauch and Hulsink, 2015; Karimi, 2016). The inconclusive results are a result of different methodologies employed, the nature and context of the programmes and lack of control groups (Nabi et al., 2017) and also various types and objectives of entrepreneurship education (Fayolle and Gailly, 2015). In addition, the duration of the programme also matters, for example, the study Fayolle and Gailly (2015) found a negative link between entrepreneurship education and entrepreneurship intention in the short term and a positive relationship in the medium term. While some studies (O' Connor, 2013; Martin, McNally and Kay, 2013; Jones, 2014: Jones 2014; Bae, Qian

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

and Fiet, 2014) have revealed mixed results on the formation of entrepreneurship intentions.

H_c: *EE as a contextual factor has a positive effect on the formation of EIs*

Conceptual Framework

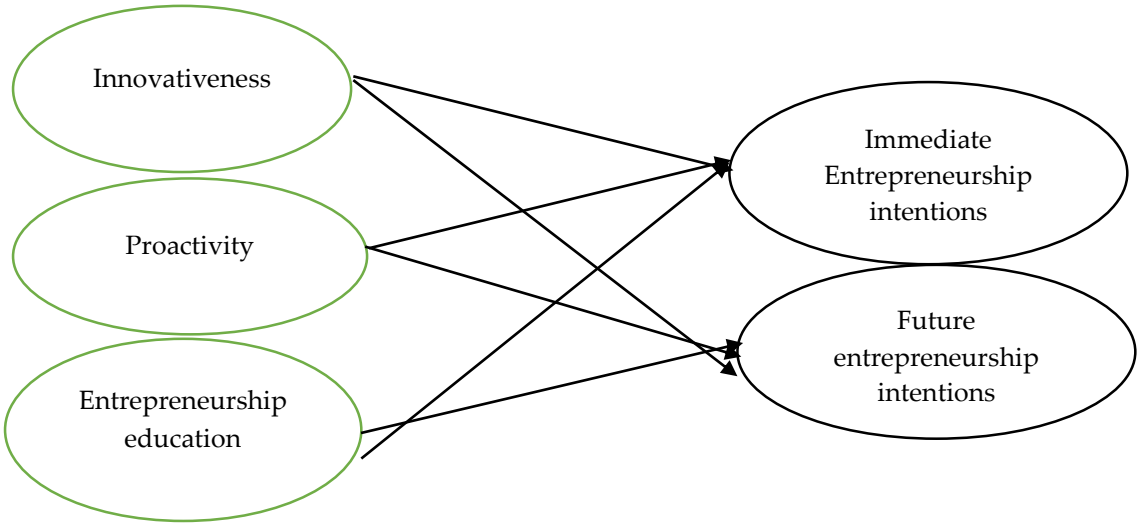


Figure1: Conceptual Framework

Research Method

In this study, 380 Mulungushi University final year students registered in 2019 were surveyed as a case in most studies on EIs. (Syam *et al*., 2018; Munir, Jianfeng and Ramzan, 2018; Gunawardena, Hemachandra and Kodithuwakku, 2018; Al *et al*., 2017; Yıldırım, Çakır and Aşkun, 2016; Westhead, 2016; Fayolle and Gailly, 2015; Ahmad, Ramayah, Mahmud, Musa and Anika, 2019: Nabi, Holden and Walmsley, 2010; Liñán and Chen, 2009). Simple random sampling was used (Saunders *et al*., 2009; Babbie, 2007). A total of 372 questionnaires were completed and returned representing a 97.8% response rate. In line with Hair, Black Babin and Anderson (2010), the questionnaire Presentation of Results responses were screened for missing data and outliers before the validation process. A 7-point Likert scale ranging from 1 representing *strongly disagree* to 5 representing *strongly agree* was employed to measure the independent variables and the dependent variables. The primary data collected measured the research model consisting of three antecedents of EIs and was tested using the SEM. Factor analysis was performed to reduce the data to smaller and manageable latent variables and perform a multivariate statistical test (Pallant, 2010). The following tests were conducted as suggested by Field (2009); adequate sample size, KMO criterion and Correlation tests as shown in Table 2 below.

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

Table 1: Demographic profile of the sample

Demographic Characteristic		Frequency	Percent
Age	18-25	312	84
	26-35	48	13
	36-45	12	3
Gender	Male	183	49
	Female	189	51
Self-employed	Yes	87	23
	No	285	77
Employment Experience	Yes	168	45
	No	204	55
Student Registration Status	Business degree	190	51
	Non-Business Degree	182	49
Participated in Entrepreneurship Education	Yes	274	74
	No	98	26

Of the 372 respondents, 84 percent were aged between 18 and 25 years, 13 percent were aged 26 to 35 years and about 3 percent were aged between 36 to 45 years. The study revealed that most of the respondents met the higher education age entry requirement. 49 percent of the respondents were male and 51 percent female. Table 5.1 presents the key demographic characteristics of the sample. This is an indication that the students are mature enough and ready to venture into entrepreneurial activities, especially female students. The results in Table 1 above suggest that fewer students are self-employed despite EE being offered to them with many of them studying business-related degrees. Therefore, it can be concluded that the impact and influence of EE on the formation of EIs among students at MU has been low.

Exploratory factor analysis

Exploratory factors analysis was conducted to determine discriminant validity and composite reliability. To conduct exploratory factors analysis, 16 items were used to measure the constructs of the hypothesised research model (Figure 1 above).

The study adopted a required minimum factor loading of 0.5 for this study (Hair et al., 2010). According to Comery and Lee (1992) and Tabachnick and Fidell (2007), an application of a tight cut-off ranges from 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.7 (excellent) where the

frequency distribution of items is not similar is recommended.

Table 2: Summary of the factor loadings

Factor	**KMO and Barlett's test**	**% Variance explained**	**Factor loadings**	**CR**
Innovation (INN)	0.633 P<0.001	56.96		0.640
I favour experimentation and an original approach to problem-solving rather than using methods others use to solve their problems			0.746	
I often like to try new and unusual activities that are not typical but necessary risk			0.718	
I prefer to try my unique way when learning new things rather than doing it as everyone else does			0.798	
Proactivity (PRO)	0.623 P<0.001	54.602		0.583
I always plan on projects and other activities			0.769	
I prefer to "step up" and keep things going on a project rather than sitting and waiting for someone else to do it.			0.760	
I usually act in anticipation of future problems, needs or changes			0.685	
Entrepreneurship Education (EE)	.841 P<0.001	60.867		0.840
Knowledge about the entrepreneurial environment			0.730	
Greater recognition of the entrepreneur's figure			0.828	
The inclination to be an entrepreneur			0.794	
The necessary abilities to be an entrepreneur			0.746	
The intention to be an entrepreneur			0.800	
Immediate Entrepreneurial Intentions (EI_1)	0.584 P<0.001	53.423		0.563
I am ready to do anything to be an entrepreneur			0.703	
My professional goal is to be an entrepreneur			0.811	
I am determined to create a business venture within the following 12 months.			0.671	
Future Entrepreneurial Intentions (EI_2)	0.584 P<0.001	67.305		0.582

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

I am determined to create a business venture within the next 5 years.			0.820	
I am determined to create a business venture within the next 10 years.			0.819	

The results in Table 2 confirmed the unidimensionality (all items loaded into one factor only) of the INN, PRO EE and EI constructs. In the case of EI two factors were identified and were labelled as immediate entrepreneurial intentions (EI_1) and future intentions (EI_2).

Discriminant validity was achieved by using the Heterotrait-Monotrait criteria.

Table 3: Discriminant Validity: Heterotrait-Monotrait criteria Analysis

	EE	INN	PRO	EI_1	EI_2
EE					
INN	0,033				
PRO	0,000	0,553			
EI_1	0,346	0,270	0,277		
EI_2	0,312	0,145	0,303	0,461	

Henseler, Ringle, and Sarstedt (2015) suggested discriminant validity thresholds of 0.850 (strict) and 0.999 (liberal). In this research, the analysis revealed that all the constructs showed discriminant validity as none was above the threshold of 0.85 according to Table 3. Concerning composite reliability, three of the research constructs were above 0.5 which is considered satisfactory. Malhotra and Dash (2011) proposed that when AVE is too strict, reliability can be determined through CR alone (Table 3 above).

Means standard deviation and Pearson Correlation Analysis

From table 4 below, on the independent variables students rated themselves highest in entrepreneurship education (Mean=18.322; SD=3.907) followed by proactivity (mean=11.975; SD=2.105) and innovativeness (mean=11.724; SD=2.309). About the dependent variables, the immediate entrepreneurial intentions were higher with a mean score of 10.814 (SD=2.702) and future entrepreneurial intentions with a mean score of 8.024 (SD=1.919).

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

Additionally, Pearson correlations were conducted to establish the direction of associations between the research variables (Pallant, 2010). The analysis reported a strongest significant interaction between innovativeness and proactivity (r = 0.303; sig.= < 0.05) followed by the association between entrepreneurial education and future entrepreneurial intentions (r = 0.258; sig. = < 0.05), immediate entrepreneurial intentions and future intentions (r =0.211; sig. = < 0.05), entrepreneurship education and immediate entrepreneurial intention (r = 0.210; sig. = < 0.05) and the least was between proactivity and immediate entrepreneurial intentions (r=0.179; sig. = <0.05).

Table 5: Means, Standard Deviation and Pearson Correlation Analysis

	Mean	Std. Dev	INN	PRO	EE	EI_1	EI_2
INN	11.724	2.309	1				
PRO	11.975	2.105	0.303*	1			
EE	18.322	3.907	0.010	0.002	1		
EI_1	10.814	2.702	0.025	0.179*	0.210*	1	
EI_2	8.024	1.919	0.057	0.076	0.258*	0.211*	1

Correlation is significant at a 0.05 level (2-tailed) *
Correlation is significant at a 0.10 level (2-tailed)**

Since all the r-values in table 5 above were above 0.70, the highest being 0.303 was an indication that multicollinearity issues were not observed.

Model Fit

CFA was conducted to assess the model fit using the chi-square and normal X^2/df value together with other model fit indices such as Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and the Root Mean Squared Error of Approximation (RMSEA. The study used the cut-off value for the goodness of fit of indices recommended by Hu and Bentler's (1999) and Hair et al (2010). As a standard practice, the acceptable model fit is denoted by a value greater than 0.9 for the CFI and TLI and a value less than 0.08 for the RMSEA. However, to show that there is a relatively good fit between the hypothesised model and observed data, the cut-off value of close to 0.95 for the CFI and TLI and 0.06 for the RMSEA are accepted (Hu and Bentler, 1999; Hair et al., 2010).

The initial model did not indicate a perfect fit of the data CMIN (X^2) =66.455; CMIN /df = 2.486; RMSEA= 0.148; TLI= 0.053; CFI=0.865. Modifications were made using a conservative strategy and the revised model reported a superior fit of the data CMIN (X^2) =66.455; CMIN /df = 1.595; RMSEA= 0.000; TLI= 1.000; CFI=1.000.

Structural Model Output

The SEM output presented in Table 6 reported a positivity relationship between proactivity and immediate entrepreneurial intentions (Coef. =0.243; P = 0.000). Additionally, entrepreneurship education was observed to have a significant interaction with immediate entrepreneurship intention (Coef. =0.145; P = 0.000) while innovativeness was not statistically significant (Coef. = -0.406; P=0.510).

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.7 (2), September-December, 2022 https://ajemates.org

On the relationship between the independent variables and the future entrepreneurial intentions, the results reported statistically significant interactions between entrepreneurship education and future entrepreneurial intentions (Coef. =0.126; P=0.000). The effects of innovativeness and proactivity on future entrepreneurial intentions were not statistically significant (Coef. =0.028; P=0.511) and (Coef. =0.059; P=0.220) respectively.

Table 6: Structural Model output.

Dependent Variable		Independent Variable	Coef.	Z	P >[z]
Immediate Entrepreneurial Intention	<-	Innovativeness	-0.406	-0.66	0.510
Immediate Entrepreneurial Intention	<-	Proactivity	0.243	3.60	0.000
Immediate Entrepreneurial Intention	<-	Entrepreneurship education	0.145	4.10	0.000
Future Entrepreneurial Intention	<-	Innovativeness	0.028	0.66	0.511
Future Entrepreneurial Intention	<-	Proactivity	0.059	1.23	0.220
Future Entrepreneurial Intention	<-	Entrepreneurship education	0.126	5.12	0.000

Discussion of the Findings

This study employed the combined environmental and personality factors to explain the formation of entrepreneurial intentions of final year students in the Zambian context. The findings reported that final years students in Zambia had a high interest in becoming entrepreneurs. The willingness to become entrepreneurs among students was higher than in previous studies with a means score of 10.814 for immediate entrepreneurial intentions and 8.024 for future entrepreneurial intentions. For instance, the study conducted by Keo (2016) reported a mean score of 4.088, Koe and Zaher (2013) with 3.99 and Sandhu et al (2011) with >3.70. The higher interest in becoming entrepreneurs can be attributed to the entrepreneurship-related courses students have received and their perception of the university environment has a significant impact on their ability and willingness to engage in entrepreneurial activities. Additionally, the business talks organized by the university for students and the Zambian government's efforts to promote entrepreneurship among youths have also impacted positively on them.

The SEM output also reported a positive relationship between proactivity and immediate entrepreneurial intentions. The findings are consistent with prior studies (Crant, 1996; Becherer and Maurer, 1999; Gupta and Bhawe, 2007; Yan, 2010; Prabhu, McGuire, Drost and Kwong, 2012; Mahon and Chee, 2016; Mustafa, 2016; Israr and Hashim, 2017; Kumar and Shukla, 2019; Munir, Jianfeng and Ramzan, 2019) which reported a positive direct interaction with Entrepreneurial intentions. Proactivity is an important personality factor which helps students to develop the ability to plan, and do things themselves than waiting for others to set the pace and they always anticipate future problems. Students with these abilities tend to have a positive

inclination towards entrepreneurial behaviours. With the future entrepreneurial intentions, the relationship was not statistically significant. Graduating students are always in a hurry to engage in entrepreneurial activities as a way of keeping themselves busy and surviving, therefore their proactiveness enables them to identify business opportunities and exploit them immediately.

Entrepreneurship education was also found to be a significant factor influencing the formation of entrepreneurial intentions (Both immediate and future intentions). The provision of well-organized entrepreneurship education as indicated by Koe (2016), where entrepreneurship education is well-designed stimulates the formation of entrepreneurial intention among students. Entrepreneurship education is intended to stimulate entrepreneurial behaviour and thinking nature, entrepreneurial ideas and assist in the creation of a venture (Keat, Selvarajah and Meyer, 2011).

However, innovativeness did not yield any statistical significance on both immediate and future entrepreneurial intentions. Therefore, there is no direct interaction between students' innovativeness and the formation of entrepreneurial intentions. The findings are inconsistent with findings in the past and recent research (Carland and Carland, 1991; Goldsmith and Kirr, 1991; Mirjana, Ana and Marjana, 2018; Wathanakom, Khlaisang and Songkram, 2020) which reported a positive interaction between innovativeness and entrepreneurial intentions. Innovativeness is about students developing novel ideas, products, systems and processes (Koe, 2016). The students cannot try their unique way when learning new things and they do things like everyone else. Apart from classroom instructions and the university environment, students need to be exposed to several local and international events for them to exhibit their innovations and learn from others. Doing so could help to stimulate the formation of entrepreneurial intentions among them. Furthermore, they should be given opportunities to experiment with new ideas and original approaches to problem-solving than employing standard methods.

Conclusion

This study was aimed at establishing the factors influencing the formation of entrepreneurial intentions of students in Zambia. The results established the time-specific entrepreneurial intentions such as immediate entrepreneurial intention (with 12 months after completing school) and future intentions ($5 \leq$ years < 10 after completing school). Additionally, students reported higher intensity of intentions to become entrepreneurs and engage in entrepreneurial activities. Furthermore, the study established that proactivity positively affected immediate entrepreneurial intention only while entrepreneurship education affected both immediate and future intentions. Innovativeness did not affect both immediate and future entrepreneurial intentions.

The findings above present both theoretical and practical implications. From the theoretical perspective, the study has established the importance of environmental factors in the formation of entrepreneurial intentions. It confirms the position that personality and contextual factors can be combined in one study and

measured at a personal level. The practical implication is that the study has established the university student's personality factors and entrepreneurship education and entrepreneurial intentions. Entrepreneurship education can enhance students learning experiences if educators can make it stimulating, practical and interactive. Learners should be allowed to experiment with real-life situations and listen to business talks presented by successful entrepreneurs. Educators should endeavour to provide students with theories and practices to increase their commercial awareness and new venture creation stills. This could also help to enhance entrepreneurial competencies such as innovativeness and proactivity.

A well-designed entrepreneurship education programme promotes individual achievements and presents opportunities for teamwork and strengthens learners' soft skills which are important to business and society's wellbeing. Therefore, EE providers have a critical role to play in enhancing students' university learning experience. There is also a need in line with this study's results, to strengthen entrepreneurship education policy in Zambia to stimulate the number of start-ups through well-designed and packaged programme initiatives. This calls for an urgent need for the creation of a business environment that supports the development of entrepreneurial intentions, especially among the students.

This study has several limitations. Future research should pick a sample including graduates (those who graduate < 5 years). Furthermore, the research should expand the entrepreneurial orientation model to include more than three variables.

Lastly, the revealed the importance of preactivity and entrepreneurial education in the development of students entrepreneurial intentions and has made significant contribution to the existing body of knowledge and at the same time provided valuable information to policy makers and educators on how entrepreneurial intentions among students could be enhanced.

Declaration

This research was not funded by any institution (self-sponsored)

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