

Specializing in Entrepreneurship Field of Study on Entrepreneurial Intentions of University Students

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Abstract

Specializing in a certain field of study at university level is believed to have a direct effect to the specific graduates under consideration. It is trusted to create and bring competent professionals in the respective fields. Skepticism has always emerged on the relevance of specializing in entrepreneurship field of study; scholars and academicians question whether it will create future and competent entrepreneurs. In this regard, this study evaluated the impact of specializing in entrepreneurship education on entrepreneurial intentions of university students. This was done by comparing students from specialization and non-specialization cohorts. This was achieved by comparing the level of enterprising tendency; intentions; and choice of intended careers of the two cohorts. A comparative-explanatory case study design was used by distributing the questionnaires to Marketing and Entrepreneurship students as (non-specialization and specialization cohorts respectively). Data from 62 respondents (i.e. response rate of 71%) were obtained. Mean, regression, independent sample tests and, ANOVA techniques were applied for data analysis. The results of the study show that students from the specialization cohort have a significant higher enterprising tendency and perceived entrepreneurial intentions than their counterparts.

Keywords: Entrepreneurship Education, Entrepreneurial intentions, Specialization, Tanzania.

1. Introduction

The evolution of entrepreneurship as a field of study can be traced back from 1947 and 1953 where the first and second courses in entrepreneurship were taught at Harvard and New York Universities respectively (Brockhaus, 2001 and Kirby, 2004). Interests in entrepreneurial careers and education began soaring in 1985 (Hisrich 2002). The result of which is wider recognition and adoption of the idea of entrepreneurship education within the broader school curriculum (Organisation for Economic Co-operation and Development [OECD], 2009). By 2001, more than 700 universities were actively engaged in entrepreneurship education in America alone (Fiet, 2001). Since 2004, entrepreneurship courses became compulsory in almost all business schools of the United States of America (USA). As a result, the USA ranks first in terms of student participation in entrepreneurship classes and entrepreneurial activity levels across universities; followed by Canada and Singapore (National Agency for Enterprise and Construction [NAEC] Report, 2004).

In Africa, entrepreneurship as a field of study is a recent phenomenon compared to America and Europe. Entrepreneurship education in the countries like Benin, Togo, Burkina- Faso and Cote d'voire began as early as 1993 through the Junior and Senior Achievement Programme. Acknowledging its importance, in Tanzania, the Government through Ministry of Higher Education, Science and Technology (MHEST) saw the need to incorporate entrepreneurship education in university curricula (MHEST, 1999). By 2003, few universities including Mzumbe University, University of Dar Es Salaam and Sokoine University of Agriculture started to respond to this government call. However, most of these universities except Mzumbe did not provide students with a chance to specialize in entrepreneurship; instead, students had to take one or two entrepreneurship subjects while majoring in other programs like accountancy, marketing, agriculture, engineering and many others.

Studies show that, entrepreneurship education is nowadays offered all over the world and at almost all levels of education. For instance; it is offered to youths in secondary schools (e.g. Junior and Senior Achievement Programme that operates in Benin, Togo, Burkina- Faso and Cote d'voire), primary schools (e.g. the Junior Achievement in the U.S.A. and Primary Enterprise Programme [PrEP] of New Zealand) and university students

for studies with a strong focus in business (OECD report, 2009). On this regard, Mwasalwiba (2011) found it to be offered to business students, entrepreneurs i.e. Small and Medium Enterprises [SME] owners, managers and employees of small businesses, minority or disadvantaged groups i.e. disabled and women, policy makers, bankers, tax authorities and the general public. This impressive development of entrepreneurship as a field of study all over the world is due to its perceived economic value of providing self-employment and creation of small business (Mwasalwiba, 2011; Nelson and Johnson, 1997; Tanzania's SME Policy, 2002; Ministry of Higher Education, Science and Technology [MHEST], 1999).

Although it has been established with a considerable consensus that entrepreneurship can be taught (Mwasalwiba, 2011) and render the supply of entrepreneurs (Kourilsky and Walstad, 1998) but very few universities offer specialized education programs in entrepreneurship (NAEC, 2004; Hisrich 2002), many offer one or few entrepreneurship subjects to students pursuing other fields of specialization like business, social science and engineering. Acknowledging its contribution, unanswered question is whether specializing in entrepreneurship education programs will increase enterprising tendency and entrepreneurial intentions among students. In this regard, this study carried out an impact evaluation of specializing in entrepreneurship education on entrepreneurial intentions of students compared to those who take few entrepreneurship subjects while pursuing other specializations like marketing.

2. Theoretical, Empirical Review and Conceptual framework

This part reviews the literatures relevant to entrepreneurship education and entrepreneurship intentions. It presents key concepts on how entrepreneurship education affects the enterprising tendency, entrepreneurial intentions and choice of careers among individuals. Moreover, it shares other empirical related studies with regard to methodological approaches, findings and conclusions. Finally, the conceptual framework was proposed basing on the theories reviewed.

2.1 Entrepreneurship education

Different terms and meanings are often associated to and interchanged with entrepreneurship education. These include enterprise education; entrepreneurial education; education for, in, about and through; and entrepreneurship education itself. According to Gibb (2004a), enterprise education means creating opportunity seeking individuals, and the terms; education for, in, about and through entrepreneurship are distinctive. Education for entrepreneurship aims at stimulating the entrepreneurial process in both present and future entrepreneurs and providing them with the tools to starting a business (Co and Mitchell, 2006). Education/learn about entrepreneurship provides the general understanding about entrepreneurship as a phenomenon (Hytti and O'Gorman, 2004). Education in entrepreneurship aims at making individuals become more entrepreneurial (innovative) in their existing firms or place of work (Henry, Hill, and Leith 2003a; Kirby, 2004; and Blenker, Dreisler, and Nielsen, 2003). Education through enterprise is the use of new venture creation to help students acquire a range of both business understanding and skills or competences (Kirby, 2004).

Although there are divergent scholarly views on the meaning and terminologies associated with entrepreneurship education, in this study the term entrepreneurship education was adopted because it often applies as a generic nomenclature for the other terms (Wai and Man 2007; Gorman *et al.*, 1997; and Hyness, 1996). Subsequently, entrepreneurship education was operationalised as "*the process of learning that is well designed to induce learners with knowledge and skills which can transform their personality, attitudes and intentions towards entrepreneurship*" (Adopted from: English and Jones *et al.*, 2004; and Nelson and Johnson, 1997).

2.2 Entrepreneurial intentions

Being antecedents of entrepreneurial behaviour, different authors define intentions depending on whether the contemplated type of entrepreneurial behaviour is self-employed (venture creation) or entrepreneurship in its broad (both in employed work setting "intrapreneur" and self-employed "venture creation").

Generally, intention means the cognitive representation of persons' readiness to perform a given behaviour and is considered antecedent to behaviour (Fayolle, Gailly, and Lassas-clerc, 2006). Bird (1989) defined intention as a conscious state of mind that directs attention (and therefore, experience and action) toward a specific object (goal) or pathway to achieve it (means). Given the possibility of changing over time, intention can be defined as the cognitive state temporally and causally prior to action (Brazeal and Krueger, 2000). Specifically, for venture creation as the desired entrepreneurial behaviour, Norris (2009) defined entrepreneurial intention as "the target behaviour of being self-employed or starting a business" and "the cognitive state temporally and causally prior to decision to a decision to start a business" respectively.

In this research however, entrepreneurial intention means the conscious state of mind that directs attention toward an intended entrepreneurial career and the means to achieving it (adopted from; Bird, 1989). These intentions are said to be affected by attitudes (feelings or thoughts about particular subject/object) and exogenous

factors (internal and external environmental factors).

2.3 Empirical Review

A number of compelling empirical findings with just few exceptions imply that entrepreneurship can be taught and successful bring about a positive impact on intentions (Rasheed, 2000; Charney and Libecap, 2009; Fleming, 1996; McHugh and O’Gorman, 2006). To start with, Rasheed’s (2000) study on “*Developing entrepreneurial characteristics in youth; the effects of education and enterprise experience*” is considered. The study sought to determine if the prominent characteristics of entrepreneurial propensity can be affected by educational and enterprise intervention at the intermediate grade level. Considering the issues of validity, reliability and acceptability; Huefner, Hunt, Robinson and Stimpson’s (1991) conceptual framework of primary entrepreneurial attitude survey scales measure on entrepreneurial propensity for adult entrepreneurs was adopted. The prominent characteristics measured were; achievement motivation in business, personal control of business outcomes, perceived self-esteem in business and innovation in business.

In addition, the instrument of measurement was modified from four-point scale to a five-point scale and its language into classroom context relevant to the youth experience. The instrument was then administered to a matching sample of 502 grades 4 up to 8 students from 9 schools and 28 classes, out of which 13 classes formed a treatment group, and 15 formed a control group in a quasi-experimental research design. Usable results from 224 students within the treatment group and 176 students within the control group were obtained. The results and findings from this study indicate a significant difference in overall entrepreneurial attitude ($p < .05$; mean = 3.04) and ($p < .05$; mean = 4.27) in favour of students trained in entrepreneurship and those who were engaged in classroom-based enterprise. More specifically, scores for students trained in entrepreneurship were significantly higher on; control ($p < .05$; mean = .89) and self-esteem ($p < .05$; mean = .73) and for students engaged in classroom-based enterprise higher on; control ($p < .05$; mean = 1.23), esteem ($p < .05$; mean = .96) and innovation ($p < .05$; mean = 1.34). Based on these findings, Prof. Rasheed concluded in support of Gorman *et al*, 1997 that; entrepreneurial characteristics can be affected by instructional and experiential intervention. More importantly, he also added that, these characteristics were universal by extending the theory to students at an intermediate level (Rasheed, 2000). Since entrepreneurial characters are universal, then the same can be implied to even university students.

Fleming, (1996) on his part carried out a longitudinal study to “*evaluate the ways in which graduates’ attitude and behaviour related over time to a new venture creation following exposure to entrepreneurship concepts and practical assignments while at college/university*”. Targeting the higher-education students, the study started in 1991 and was completed in 1996. The study initially involved a sample of 838 graduates; consisting of a treatment group of 419 students and control group of 419 students who were surveyed through postal mail. Later in 1996, a follow-up survey was made to the treatment group. The study found that; enterprise initiative affected career aspirations, the proportionate of graduates entering business ownership increases with graduates’ maturity and half of those who were in employment indicated an interest in or expected to set up their own business at some time in the future. However, he cautioned that; the predilection to become entrepreneurs or engage in entrepreneurial activity and the benefits of entrepreneurship education may not become apparent for a number of years and the type of entrepreneurship education program is crucial in determining the impact.

Last but not least, there was another stunning study of Ijsselstein, Oosterbeek and Praag (2008) titled “*the impact of entrepreneurship education on entrepreneurship competences and intentions: an evaluation of the Junior Achievement Student Mini-Company Program*”. Using the difference in difference approach methodology, the study compared students participating on the program and a comparable group in a college without the programme. It also used instrumental variable and regression approaches in analyzing the results/findings. Stunningly, it was found that the program had not achieved intended effects and there was no significant difference between the two groups in the development of their entrepreneurial skills. This study is stunning not only because of its analytical rigour but also the innovative or active or action based learning approach employed in the program which according to Bennet (2006) is the most effective. However, the findings are in contrast with many who have reported significant impacts.

Despite these impressive results of entrepreneurship education on entrepreneurial behaviour and intentions of students, the question of which education mode between specialization and non-specialization is more effective is yet to be unveiled. Thus, the results that justify offering specialized entrepreneurship education in contrast to non-specialization are dearth.

2.4 Conceptual Framework

Models by various authors converge on entrepreneurship being an outcome of cognitive mind preceded by intentions. The logic is “*we don’t start a business as a reflex, instead we think and plan for the most opportune*” (Brazeal and Krueger, 2000). Furthermore, intentions are arguably the best and proven measures of

entrepreneurship (Mwasalwiba, 2011). These models, however, are built around two prominent models namely Ajzen's theory of Planned Behaviour (TPB) which derives from sociology and the Theory of Entrepreneurial Event (TEE) by Shapero and Sokol. According to Ajzen (1991), any act or behaviour that requires individuals to plan ahead like entrepreneurship is, can be determined by studying the subject's intention to pursue the action. Intention is influenced by the subject's attitude toward the envisaged behaviour; subjective norms (subject's perception concerning how legitimate will be the intended behaviour to closer members of the society) and the subject's perception of her or his control over the intended behaviour. But in Shapero and Sokol (1982) intention to start a business predicts the venture creation behaviour in presence of a precipitating event and is determined by perception of desirability (how attractive is the act upon the subject); propensity to act (extent to which the subject is determined to act on the event); and perception of feasibility (subjects perceived competence in furnishing the envisaged act). A more extended model by Byabashaija *et al.*, 2010 framed personal factors as exogenous factors which influence entrepreneurship education and societal subjective norms. The latter influences attitudes, then intentions and finally entrepreneurial behaviour. Franke and Christian (2004) on the other hand, modelled internal factors-personality factors (willingness to take risk; and need for independence; locus of control, etc) and external factors-environment (markets; society; and university-training, inspiration and networking) as exogenous factors which determine attitudes towards self-employment which lead to start up intentions and entrepreneurial behaviour in consequence.

In this study as well; entrepreneurship was adopted as a planned behaviour and one's intentions to act entrepreneurially as its antecedents, attitudes toward entrepreneurship being the precursor of intentions (Ajzen, 1991; Shapero and Sokol, 1982; Byabashaija *et al.*, 2010 and Franke and Christian, 2004). Personality traits are exogenous as they exist in every individual but at varying degrees. It follows therefore; university training (entrepreneurship education) together with other exogenous factors like previous experience, age and markets (made constants in this study) intervene to develop i.e. promotes one's personality traits and in consequence influences attitude variables. In this way entrepreneurship education as it is increasingly agreed in literature, has influence on personality traits. Social subjective norms will be excluded from attitude variables because they have been found to have insignificant impact in determining intentions in many circumstances (Li, 2005; Basu and Virick, 2008; Krueger *et al.*, 2000; and Bagozzi, Baumgartner and Yi, 1992). However, perceived behavioural control (as in Ajzen, 1991), and perceived desirability (as in Shapero and Sokol, 1982) will be included as attitude variables. Shapero and Sokol's propensity to act will be excluded because it precedes action rather than intention (Byabashaija *et al.*, 2010). Importantly, it is embedded in personal factors like need for achievement and action orientation. Hence the study's conceptual framework is constructed as in figure 1 here:

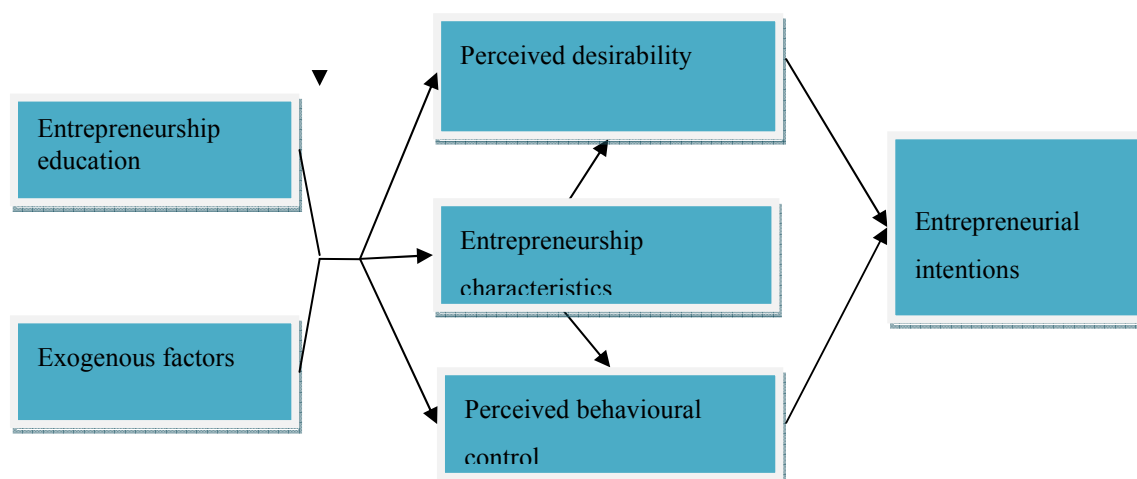


Figure 1: Conceptual framework by researchers

From figure 1 above, *entrepreneurship characteristics* are personality traits like need for achievement, internal locus of control, moderate risks taking, etc that are essential for success in entrepreneurship and which can be well developed through entrepreneurship education. They include but not limited to need for achievement, locus of control, innovation, creativity and risk taking (adopted from Bulsara *et al.*, 2011).

According to Ajzen (1991); *perceived behavioural control* is the perceived easiness or difficulty of performing the desired behaviour and it reflects experience as well as anticipated impediments and obstacles. In this study, the term *perceived behavioural control* will be adopted meaning the degree to which one feels personally

capable of successfully performing and controlling the various roles and tasks involved in entrepreneurship (adopted from: De Noble, Jung and Ehrlich, 1999; Ajzen, 1991; and Shapero and Sokol, 1982).

Defining *perceived desirability*, Shapero and Sokol (1982) meant personal attractiveness of starting a business, including both intrapersonal and extra-personal impacts. Alternatively, the term attitude can be used instead of perceived desirability (Ajzen, 1991). Thus for being comprehensive and focused, the term *perceived desirability* is adopted throughout this study and subsequently defined as degree of personal attractiveness towards being an entrepreneur.

2.5 Hypotheses

As indicated in the conceptual framework, entrepreneurship education is one of the exogenous factors, which influences entrepreneurial intentions through attitude variables namely perceived behavioural control and perceived desirability in the presence of personality traits (figure 1). Provided below is a set of logically derived predictions on impact outcomes of entrepreneurship education on intentions of students.

Recently, the use of personality factors or stable entrepreneurship characteristics or even situational factors in measuring the impact of entrepreneurship education has been regarded to be ineffective ((Alan, Krueger Jr., and Michael, 2000; and Robinson *et al.*, 1991), they still recur in many impact studies as one of the exogenous factors which influence attitude variables (see for instance in: Franke and Christian, 2004; and Byabashaija *et al.*, 2010). Shane, 2003 suggested that psychological factors are important in influencing people to exploit new venture opportunities. Shane went on explaining that some of these factors are motivational (e.g. need for achievement, risk taking propensity and desire for independence), others are core self- evaluation (locus of control and self-efficacy) and cognitive (beliefs and attitudes that influence how a person thinks and makes decisions). Nevertheless, modelling of personal factors exogenous as in Franke and Lutheje, 2004; and Byabashaija *et al.*, 2010 would mean the factors occur independently, permanently and of course translating into being inborn qualities. This will lead us back to a myth that is shunning a way due to the contemporary belief that entrepreneurship can be taught and its characters learnt. *How then do these factors best impact entrepreneurship?* Shane's 2003 work is of particular importance in this context as it uncovers the fact that psychological factors affect self-efficacy or perceived behavioural control (locus of control and cognition) and perceived desirability (motivation and cognition). Hence, in this study, it is suggested that personal factors which are psychological in nature do influence individual's perception of their confidence in terms of perceived behavioural control and perceived desirability which in turn determine intentions to act. Since entrepreneurship education promotes psychological characteristics associated with entrepreneurship (Kourilsky and Walstad 1998; and Krueger and Brazeal, 1994), it is therefore logical to hypothesize that;

H₁: *Personality traits influence entrepreneurial intentions positively through attitudes and there will be higher enterprising tendency from students of specialization than non-specialization cohorts.*

On entrepreneurial intentions, a number of previous studies have found entrepreneurship education to have significantly raised or enhanced perceived behavioural control (Bandura, 1977; Hollenbeck and Hall, 2004; and Wilson *et al.*, 2007), perceived desirability (Fayolle *et al.*, 2006 and Krueger, 1993) and subsequently learner's intentions to pursue entrepreneurial careers (Wilson *et al.*, 2007). Of much interest at this juncture is Noel's 1998 study that did not only find entrepreneurship education to be related to entrepreneurial intentions but its relation being stronger in students majoring in entrepreneurship. This conquers, and of course is explained with the reasoning that "the more solid is learning on theories of entrepreneurship is, the more business knowledge is gained and psychological attributes associated with entrepreneurship induced" (Krueger and Brazeal, 1994; and Kourilsky and Walstad, 1998). This in turn enhances perceived personal desirability, perceived behavioural control and the corresponding entrepreneurial intentions. Therefore, from these facts, this study hypothesizes that;

H₂: *Students from the specialization cohort will show stronger entrepreneurial attitudes and intentions than students from the non-specialization cohort.*

On the choice of entrepreneurial careers between the two cohorts, intentions differ depending on whether the contemplated career intention is the self-employed entrepreneur- venture creation or employed entrepreneur-intrapreneur (Douglas and Fitzsimons, 2008). Since courses designed to introduce students to the principles of business and management tend to teach students to become more proficient employees in their respective professional careers (Solomon, 1989), then pursuing one or few entrepreneurial subjects may influence individuals into being intrapreneurial in their field of employed work settings. However, since graduate's start-up or self-employment remains the most desirable outcome of entrepreneurship education (Mwasalwiba, 2011), and so is the main focus of entrepreneurship education, then specializing in entrepreneurship is expected to render learners contemplate for self-employment or venture creation. On these accounts, this study hypothesizes that;

H₃: Students from the specialization cohort will strongly intend to create their own venture as their preferred entrepreneurial career while students from the non-specialization cohort will strongly intend for formal employments (intrapreneurship).

3. Research Methodology

This study sought to establish a cause-effect relationship by associating entrepreneurship education as an intervention to the entrepreneurial outcome in terms of intentions, so, it is a static group comparison-explanatory case study design which was conducted in Morogoro, Tanzania, by taking Mzumbe University's final year bachelor degree students in entrepreneurship and marketing as specialization and non-specialization cohorts respectively as the unit of analysis. Mzumbe University was selected because it was the first to offer a specialization degree in entrepreneurship in the country. A total of 100 which is 96% of the total number of final year students from the two cohorts were initially targeted as a sample, however, the returned questionnaires were 62 (29 from entrepreneurship and 33 from Marketing students) which was satisfactory because it exceeded half the number of study population. Purposive sampling technique was applied to select the sample size of marketing and entrepreneurship. Compared mean, regression, independent t-test and ANOVA were applied to perform data analysis. These techniques were useful for interval scaled data involving a group of two independent samples (specialization and non-specialization cohorts). The analysis was made simple through the use of SPSS as an analytical tool.

The study used both primary and secondary data sources. Secondary data were collected by observing appropriate documentations. Primary data were collected through personal questionnaires which were distributed to respondents. The questionnaires consisted of closed-ended and administrative questions. The questions required respondents to rank their level of agreement on possession or dispossession of some attributes of personality traits, entrepreneurial attitude and entrepreneurial intentions on a five point Likert scale (-2 strongly disagree...+2 strongly agree). Questionnaires were used because gave adequate time for respondents to think and fill them conveniently. This was appropriate because students had tight class schedules during day hours. Moreover, questionnaires were believed to give answers free of the researcher's oral clarifications which may lead to biasness.

3.1 Validity and Reliability Issues

To ensure valid results; extraneous variables like age, previous exposition to entrepreneurship education, previous work experience and presence of role models in the family which have been shown to influence entrepreneurial intentions were studied for control purposes. All of them depicted insignificant impact on entrepreneurial intentions (see table 1: below). In addition; calling back to respondents for verifying inadequate responses, discarding invalid questionnaires, questionnaire forward-backward translation, adoptions of proven measurement instruments were the techniques adopted to secure validity in this study.

Table 1: Summary of ANOVA results on impact of extraneous variables

<i>Influential factor</i>	<i>Significance of impact on the variables as shown by probability values</i>			
	<i>Personality traits</i>	<i>Perceived desirability</i>	<i>Perceived behavioural control</i>	<i>Entrepreneurial intention</i>
<i>Previous knowledge</i>	<i>p > 0.9</i>	<i>p > 0.7</i>	<i>p > 0.8</i>	<i>p > 0.2</i>
<i>Role models</i>	<i>p > 0.2</i>	<i>p > 0.5</i>	<i>p > 0.8</i>	<i>p > 0.2</i>
<i>Previous work experience</i>	<i>p > 0.1</i>	<i>p > 1.0</i>	<i>p < 0.04</i>	<i>p > 1.0</i>

Since the researcher used scale measurements, Cronbach's alpha reliability analysis in which a proven reliability test for scaled data was used. With this scale alpha reliability coefficients for reliable data should be 0.7 and above. Alpha reliability coefficients for scaled data in this study were all above 0.7 as summarized in the table 2 below. This implies that the data were scaled reliably.

Table 2: Alpha reliability test for scaled data

Scaled variable	Coefficient Cronbach's Alpha Reliability
Personality traits	0.75
Perceived behavioural control	0.85
Perceived desirability	0.81
Perceived entrepreneurial intention	0.96

3.2 Variables and their Measurements

The indicator variables for the impact of entrepreneurship education were derived from the conceptual

framework of the study (figure 1). They fall within three categories namely personality traits, attitudinal and intentional variables, which were measured quantitatively using a 5 point interval scale. i.e. -2 = strongly disagree; -1 = disagree; 0 = neither disagree nor agree (neutral); +1 = agree and +2 = strongly agree.

- i. *Personality Variables* - (personality traits) measured during this study included locus of control, need for achievement (nAch), creativity, innovation and risk taking propensity as constructs of enterprising tendency. Students were asked to rate their perceived predisposition towards the personality traits provided under a 5 point interval scale (Likert scale) which formed the base for quantifying their attitude variables.
- ii. *Attitudinal and intention variables* - were subdivided into indicator variables for perceived desirability and perceived behavioural control. Perceived desirability was measured on the interval scale using student's self weighed perceptions of relative importance, advantage, attractiveness, satisfaction and preference of entrepreneurial career to them. On measuring students perceived behavioural control - student's self weighed perceptions of knowledge of start-up procedures, competence in actual handling the procedures of starting a business, knowledge of managerial principles, competence in real management of a challenging career; knowledge of contents of a business plan and competence in actual creation of an effective business plan were used to indicate perceived behavioural control on the interval scale. On measuring intentional variables - students were measured on the interval scale using self weighed perceptions on the objective, readiness and seriousness of thoughts to become entrepreneurs.
- iii. *Choice of entrepreneurial career*: The choice of intended entrepreneurial career was measured nominally using intentions to create venture and intentions to work as an entrepreneurial employee i.e. Intrapreneurship (social and corporate employments) as alternative entrepreneurial career choices after graduation.

4. Findings

This section present and discusses the results from the study. It must be remembered that the study aimed at establishing cause-effect between entrepreneurship education on enterprising tendency, intentions and choice of entrepreneurial career by comparing students from specialization and non-specialization cohorts. To infer on an observable impact to be a result of a certain factor, one has to rule out the possibility of other factors influencing the impact (see table 1 above).

4.1 Personality traits and Intentions

It is well known that entrepreneurs possess personality traits that differentiate them from ordinary persons. However; it is not well known how these personalities influence entrepreneurial intentions which are known to be preceded by entrepreneurial attitudes in terms of perceived desirability and behavioural control. This study, therefore, established the relationship between personality traits and intentions. It also compared the level of the enterprising tendency between final year university students from the two cohorts. The relationship between personality traits and intentions is presented by figure 2 below:

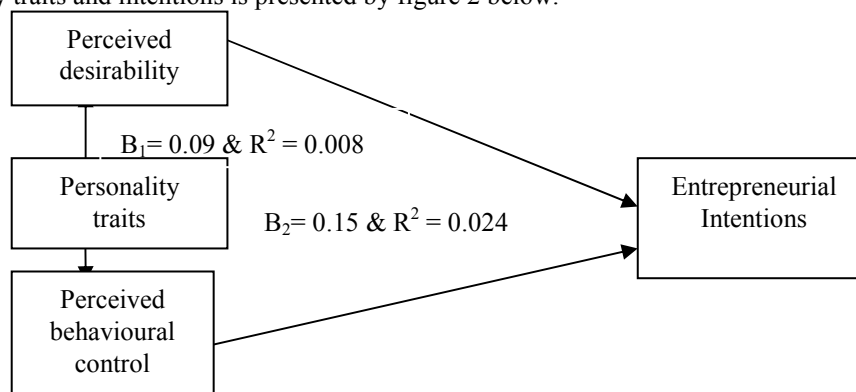


Figure 2: Relationship between personality traits and entrepreneurial intentions

Using regression analysis technique, the study observed the relationship and obtained the results in table 3 and 4 below. According to table 3 below, personality factors influence only 0.8% ($R^2 = 0.008$) of changes in perceived desirability at $p < 0.49$ and 95% confidence other factors held constant. This is a weaker correlation of about 0.09. Moreover, table 4 below indicates that personality traits predict about 2.4% ($R^2 = 0.024$) of changes in perceived behavioural control toward entrepreneurship at $p < 0.23$ and 95% confidence level. This is a weaker correlation of

about 0.15. These results support the existence of a significant but poor relationship between personality traits and intentions via attitudes. The predictive power of personality traits is slightly higher on perceived behavioural control of entrepreneurship than in desirability of entrepreneurship.

Table 3: Regression results for personality traits and perceived behavioural control

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.154(a)	.024	.007	.59687

a Predictors: (Constant), Personality traits

b Dependent Variable: Perceived feasibility

Table 4: Regression results for personality traits and perceived desirability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.090(a)	.008	-.009	.66291

a Predictors: (Constant), personality traits

b Dependent Variable: Perceived desirability

Regarding the enterprising tendency, students from the specialization cohort (entrepreneurship) were more inclined to entrepreneurial characteristics compared with their counterparts. Average scores from the specialization cohort on perceptions towards creativity tendency, locus of control, need for achievement, innovation tendency and risk taking tendency as constructs of enterprising tendency were 1.4, 1.2, 1.2, 1.2 and 0.5 respectively while those from non specialization cohort were 1.1, 0.9, 0.8, 0.8 and 0.0 respectively. Only the results for creativity, need for achievement and innovation were tested significantly for students from specialization than non-specialization cohorts at probability values $p < 0.2$, $p < 0.03$ and $p < 0.047$ respectively. The results for locus of control and risk taking propensity tested an insignificant difference between specialization and non-specialization cohorts at probability values $p > 0.08$ and $p > 0.06$ and 95% confidence level. Overall perceived enterprising tendency for specialization cohort was 1.1, which tested significantly higher than 0.7 of non-specialization cohort at a probability value of $p < 0.01$ and 95% level of confidence.

Table 5: T-test results for student's perceived enterprising tendency

	Cohort	N	Mean	Std. Deviation	Std. Error Mean
Perceived need for achievement	Non specialisation	32	.7891	.72986	.12902
	With specialisation	29	1.1810	.55055	.10224
Perceived locus of control	Non specialisation	32	.8854	.84924	.15013
	With specialisation	29	1.2414	.68947	.12803
Perceived creativity	Non specialisation	32	1.0938	.53705	.09494
	With specialisation	29	1.4253	.61008	.11329
Perceived innovation	Non specialisation	32	.7656	.90682	.16031
	With specialisation	29	1.1897	.72474	.13458
Perceived risk taking tendency	Non specialisation	32	.0000	.82956	.14665
	With specialisation	29	.4598	.99767	.18526

Based on the results presented above, the hypothesis (H_1) that *Personality traits influence entrepreneurial intentions positively through attitudes and there will be higher enterprising tendency for students from the specialization than non-specialization cohorts* is accepted.

4.2 Perceived desirability, behavioural control and intentions

Intentions are formed as a result of as a result of perceived behavioural control and desirability towards entrepreneurship (see figure 1). Therefore, the study compared perceived behavioural control and desirability of students from the two cohorts.

(a) Perceived desirability

The average score on perceived; advantage, attractiveness, satisfaction, and preference as the constructs of perceived desirability were 2.0, 2.0, 1.7 and 1.6 respectively for specialization cohort and 1.5, 1.3, 0.8 and 0.9 on the same constructs for students from the non-specialization cohort. On an independent sample T-test, the mean scores for perceived advantage, attraction, satisfaction and preference of entrepreneurship for students from the

specialization cohort tested significantly higher than non-specialization at the respective probability values of $p < 0.00$, $p < 0.00$, $p < 0.01$ and $p < 0.003$ as per table 6 below. In these results however; scores for students from both cohorts on perceived advantage and attractiveness constructs are slightly higher than scores on perceived satisfaction and preference constructs. The overall average scores on perceived desirability were 1.8 and 1.1 for specialization and non-specialization cohorts respectively. These scores were tested significantly higher for students in specialization than non-specialization cohorts at $p < 0.00$ and 95% confidence interval as per table 7 below:

Table 6: T-test results for students perceived desirability of entrepreneurship

	Cohort	N	Mean	Std. Deviation	Std. Error Mean
Perceived advantageousness of being an entrepreneur	Without specialisation	32	1.4688	.62136	.10984
	With specialisation	29	1.9655	.18570	.03448
Perceived attractiveness of being an entrepreneur	Without specialisation	32	1.3438	.78738	.13919
	With specialisation	29	1.9655	.18570	.03448
Perceived level of satisfaction of becoming an entrepreneur	Without specialisation	32	.8438	1.11034	.19628
	With specialisation	29	1.6552	.76885	.14277
Perceived degree of preference to becoming an entrepreneur	Without specialisation	32	.8750	.97551	.17245
	With specialisation	29	1.5862	.82450	.15311

Table 7: T-test results for Students overall perceived desirability of entrepreneurship
 Group Statistics

	Cohort	N	Mean	Std. Deviation	Std. Error Mean
Overall perceived entrepreneurship desirability	Without specialisation	32	1.1328	.69556	.12296
	With specialisation	29	1.7931	.40128	.07452

(b) Perceived behavioural control

The results show that students from the specialization cohort had higher perceived value on each construct of perceived behavioural control than those from the non-specialization cohort. Specifically, the respective mean scores on perceived behavioural control in terms of; knowledge of start up procedures, competence in handling start up procedures, knowledge of principles of management, competence in management of challenging careers, knowledge of planning procedures, knowledge of business plan contents and competence in formulation of effective business plans were 1.3, 1.2, 1.4, 1.5, 1.7, 1.8, and 1.7 for specialization cohort and 0.5, 0.4, 0.7, 0.9, 1.2, 1.4 and 1.3 for non-specialization cohort. These scores on each respective construct of perceived feasibility tested significantly higher for students specialization than non-specialization cohort at $p < 0.000$, $p < 0.001$, $p < 0.006$, $p < 0.005$, $p < 0.003$, $p < 0.008$ and $p < 0.012$ and 95% confidence interval as per table 8. A curious trend for these results is that both cohorts had relatively high scores on perceived knowledge of planning procedures and business plan contents and competence in creation of effective business plans compared to the constructs of perceived knowledge of management principles and start-up procedures and competence in handling start up procedures and managing a challenging career. The overall perceived value score of students from the specialization cohort was 1.95, which tested significantly higher than 0.95 of non-specialization at $p < 0.000$ and confidence interval of 95%.

(c) Entrepreneurial intentions

Entrepreneurial intentions were measured using students perceived objective, readiness and seriousness of thoughts to become an entrepreneur. These constructs scored 1.9, 1.9 and 1.86 respectively for specialization

cohort and 1.3, 1.1 and 1.2 for non-specialization cohort. . At 95% confidence interval, these scores tested significantly higher for specialization than non-specialization cohort at probability values $p < 0.001$, $p < 0.000$ and $p < 0.001$ respectively as per table 9 below. To gain an overall picture of students perceived entrepreneurial intention, score values on each construct were averaged. The results clearly indicate that there are higher overall perceived intentions in the specialization than students from non-specialization cohorts, i.e. 1.9 and 1.2 respectively. The T-test results for overall perceived entrepreneurial intention show a significant difference in favour of specialization cohort at the confidence intervals of 95% and probability value of $p < 0.00$.

At this juncture, it is a matter of fact that the results which were obtained from field regarding entrepreneurial attitudes (i.e. perceived desirability and perceived feasibility), and entrepreneurial intention has indicated significantly higher scores in favour of students who were specializing in entrepreneurship. Thus, the study accepts the second hypothesis (H_2): *Students from the specialization cohort will express stronger entrepreneurial attitudes and in subsequent stronger entrepreneurial intentions than students from the non-specialization cohort.*

Table 9: T-test results for student's perceived entrepreneurial intentions

	Cohort	N	Mean	Std. Deviation	Std. Error Mean
Perceived degree of objectivity to become entrepreneur	Non specialisation	32	1.2500	.95038	.16801
	With specialisation	29	1.8966	.40925	.07600
Perceived degree of readiness to become entrepreneur	Non specialisation	32	1.0938	1.02735	.18161
	With specialisation	29	1.8966	.40925	.07600
Perceived degree of seriousness to become entrepreneur	Non specialisation	32	1.2188	.90641	.16023
	With specialisation	29	1.8621	.44111	.08191

(d) Choice of intended entrepreneurial career

The results show that 78% of 29 students from the specialization cohort chose venture creation as their contemplated career while 70% of 33 students from the non-specialization cohort chose the same career. On the other hand, only 22% of students from the specialization cohort chose formal employment (intrapreneurship) as their contemplated career likewise 30% for students from the non-specialization cohort. The results show that there are more students from the specialization cohort who will go for venture creation as their intended career and more students from the non-specialization cohort will go for formal employment (Intrapreneurship). However; using ANOVA the mean difference to the results in career contemplation is insignificant at $p > 0.509$ and 95% confidence interval. With these results, the study failed to accept the third hypothesis (H_3): *Students from the specialization cohort will strongly intend to create their own venture as their preferred entrepreneurial career while students from the non-specialization cohort will strongly intend for formal employments (Intrapreneurship).*

5. Conclusion

As it has been put forward in this study, the main issue was to evaluate the impact of specializing in entrepreneurship education on entrepreneurial intentions of university students. To address this issue, three specific research issues were raised. These were relating personality traits and intentions and comparing inclination towards personality (enterprising tendency) between students who were in specialization and non-specialization cohorts by comparing the differences between the attitudes and intentions, and lastly, the study determined the difference to the choice of intended entrepreneurial careers from the two cohorts.

Generally, this study concludes that, specialization in entrepreneurship education is more effective in promoting personality traits and entrepreneurial attitudes and intentions than non-specialization, regardless of the nature of entrepreneurial career. It is recommended that universities throughout the country should concentrate on initiating entrepreneurship programs in order to produce future successful entrepreneurs who will contribute towards the economic development.

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