

**ENTREPRENEURSHIP EDUCATION AND BUSINESS START-UP:  
ASSESSING ENTREPRENEURIAL TENDENCIES AMONG UNIVERSITY  
GRADUATES IN TANZANIA**

**ATANASI MANGASINI**

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF DOCTOR OF PHILOSOPHY OF SOKOINE UNIVERSITY OF  
AGRICULTURE. MOROGORO, TANZANIA.**

**2015**

## **EXTENDED ABSTRACT**

Graduate unemployment is a long-standing socio-economic problem in Tanzania. Consequently, the government of Tanzania is fostering entrepreneurship programmes in higher education with the assumption that graduates will be empowered in their entry into business. However, few graduates have started their own businesses. The thesis provides reasons for this by measuring entrepreneurial tendencies, assessing determinants of the tendencies, identifying barriers to business start-up and assessing determinants of graduates' entrepreneurial entry intentions. A cross-sectional research design was employed; 308 graduates were sampled using systematic random sampling. A self-administered questionnaire which included the General Enterprising Tendencies Test and key informant interviews were applied in gathering information. Quantitative data were analysed using the Statistical Package for Social Sciences to compute descriptive statistics, independent-samples t-test, binary logistic regression, Pearson chi-square test and Structural Equation Modelling whereby Confirmatory Factor Analysis was performed using Analysis of Moment Structures software. Qualitative data were analysed using content analysis. The findings showed that, generally, university graduates had low entrepreneurial tendencies. Moreover, graduates who studied entrepreneurship had higher entrepreneurial tendencies than their counterparts ( $p < 0.05$ ). Furthermore, entrepreneurship education, parents' education level, number of children in a family, parents' occupation, age and birth order position contributed to predicting entrepreneurial tendencies ( $p < 0.05$ ). Also, inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitments to extended families and bureaucratic tendencies were major barriers to business start-up among university graduates ( $p < 0.05$ ). Besides, there was a positive association between studying entrepreneurship and entrepreneurial entry intention ( $p < 0.05$ ). Graduates' sex, age, birth

order position and marital status significantly contributed to predicting graduates' entrepreneurial entry intention ( $p < 0.05$ ). Universities countrywide should make entrepreneurship training compulsory to all students. Graduates are urged to join forces with their siblings in forming and owning firms to offset their inborn or rearing weaknesses. Regarding lack of business experience, universities should adopt apprenticeship and field attachment approach.

## DECLARATION

I, **Atanasi Mangasini** hereby declare to the Senate of Sokoine University of Agriculture that this thesis is my original work done within the period of registration and that it has neither been submitted nor is being concurrently submitted for a degree award in any other institution.

---

Atanasi Mangasini

**(PhD Candidate)**

---

**Date**

The above declaration is confirmed

---

Prof. Damian M. Gabagambi

**(Supervisor)**

---

**Date**

## **COPYRIGHT**

No part of this thesis may be re-produced, stored in any retrieval system, or transmitted in any form or by any means without prior permission of the author or Sokoine University of Agriculture in that behalf.

## ACKNOWLEDGEMENTS

It would not have been possible to write this doctoral thesis without the help of God and the support of kind people around me, only some of whom it is possible to give particular mention here. Above all, I thank my wife Sophia for her personal support and great patience at all times. My children (Simon, Zuliethy, Mecktildah, Emmanuel and Samwel), my brothers and sisters have given me their unequivocal support throughout, as always, for which my mere expression of thanks likewise does not suffice.

This thesis would not have been possible without the help, support and patience of my supervisor, Prof. Damian Mulokozi Gabagambi, not to mention his advice and unsurpassed knowledge of entrepreneurship. The good advice, support and friendship of my supervisor have been invaluable at both the academic and at a personal level, for which I am extremely grateful.

I acknowledge the financial, academic and technical support of the Moshi Co-operative University (formerly Moshi University College of Co-operative and Business Studies) and its staff, particularly for awarding me a study leave and administrative endorsement which facilitated the research which this thesis is based. I also thank the Tanzania Higher Education Students' Loans Board for financing this study.

I am grateful to Prof. Besrat Tesfaye of the Department of Business Studies, Center for Entrepreneurship, Södertörn University College, Sweden and Mr. Mikidadi Idd Muhanga of Development Studies Institute, Sokoine University of Agriculture, Tanzania for their valuable and reliable support during my research proposal writing for the PhD study.

I also thank Mr. Thobias Mkamate, a student at the Moshi Co-operative University - Tanzania, Ms. Elibeth Msoka of St. John University - Tanzania, Mr. Robert John of National Museum, Ministry of Natural Resources and Tourism -Tanzania, Mr. Tluway Quray of Majengo Secondary School - Moshi Tanzania, Mr. Thobias Siame Administrative Officer - Tabora Municipal Council, the late Mr. Stanley Malekela of the Mwalimu Nyerere Memorial Academy, Dar es Salaam - Tanzania, Ms. Susan Patrick Longopa of Tanzania Employment Services Agency (TAESA) in Dar es Salaam - Tanzania, Mr. Stephen Chonya of Benjamin Mkapa Secondary School, Dar es Salaam – Tanzania and Dr. Donath Olomi of the Institute of Management and Entrepreneurship Development, Dar es Salaam – Tanzania for their generosity, encouragement and diligent support during field work.

I am thankful to Prof. Suleman Adam Chambo, Mr. Legnard Ngailo, Mr. Mathew Diyamett and Ms. Neema Kumburu all from the Moshi Co-operative University – Tanzania; Prof. Kim Abel Kayunze of the Development Studies Institute, Sokoine University of Agriculture – Tanzania; Dr. Evans Osabuohien of the Covenant University, Ota, Nigeria; Dr. Stefan Ouma of the Goethe University Frankfurt am Main, Germany; Mr. Kassa Teshager of the Ethiopian Civil Service University, Ethiopia and Dr. Joseph Sungau of Mzumbe University, Tanzania) for their support particularly on reading, editing and correcting various versions of papers which form this thesis. For any error or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

## **DEDICATION**

This thesis is dedicated to my late parents, my father Atanasi John Katundu, my mother Zuliethy Michael Wamweru and my late brothers Augustine, Desideri and Eric. May God rest your souls in eternal peace, amen.



## TABLE OF CONTENTS

<b>EXTENDED ABSTRACT .....</b>	<b>ii</b>
<b>DECLARATION .....</b>	<b>iv</b>
<b>COPYRIGHT .....</b>	<b>v</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>vi</b>
<b>DEDICATION .....</b>	<b>viii</b>
<b>TABLE OF CONTENTS .....</b>	<b>ix</b>
<b>LIST OF TABLES .....</b>	<b>xv</b>
<b>LIST OF FIGURES .....</b>	<b>xvi</b>
<b>LIST OF APPENDICES .....</b>	<b>xvii</b>
<b>LIST OF ABBREVIATIONS AND ACRONYMS .....</b>	<b>xviii</b>
 <b>CHAPTER ONE .....</b>	 <b>1</b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 Background Information.....	1
1.2 Debates in the Study of Entrepreneurship .....	3
1.3 Problem Statement.....	6
1.4 Justification of the Study .....	8
1.5 Objectives .....	9
1.5.1 Main objective .....	9
1.5.2 Specific objectives .....	9
1.6 Research Questions and Hypotheses .....	10
1.6.1 Research Questions.....	10
1.6.2 Hypotheses.....	10
1.7 Theoretical and Conceptual Framework for the Study.....	11

1.7.1 Theoretical framework.....	11
1.7.2 Conceptual framework.....	13
1.8 General Methodology .....	15
1.8.1 Study location .....	15
1.8.2 Research design .....	16
1.8.3 Sampling procedures .....	16
1.8.4 Types and sources of data.....	18
1.8.5 Tools and methods of data collection .....	18
1.8.6 Data analysis procedures .....	20
1.9 Reliability and Validity of the Questionnaire.....	25
1.10 Limitations of the Study .....	26
1.11 Ethical Consideration.....	27
1.12 Organization of the Thesis.....	27
1.13 References.....	29
 <b>CHAPTER TWO .....</b>	 <b>42</b>
<b>2.0 ENTREPRENEURIAL TENDENCIES OF TANZANIAN UNIVERSITY</b>	
<b>GRADUATES: EVIDENCE FROM UNIVERSITY OF DAR ES SALAAM ....</b>	<b>42</b>
2.1 Abstract.....	43
2.2 Introduction.....	44
2.3 Conceptualizing Entrepreneurial Tendencies .....	46
2.5 Findings and Discussion .....	54
2.5.1 Findings .....	55
2.5.1.1 Graduates' entrepreneurial intention .....	55
2.5.1.2 Graduates' entrepreneurial intention by cohort .....	55
2.5.1.3 Entrepreneurial tendency of Tanzanian university graduates.....	56

2.5.1.4 Entrepreneurship education and graduates' need for achievement .....	57
2.5.1.5 Entrepreneurship education and need for autonomy .....	58
2.5.1.6 Entrepreneurship education and graduates' creative tendency.....	59
2.5.1.7 Entrepreneurship education and graduates' calculated risk taking.....	60
2.5.1.8 Entrepreneurship education and graduates' internal locus of control .....	60
2.6 Discussion.....	61
2.7 Conclusions and Recommendations .....	63
2.8 References.....	66
 <b>CHAPTER THREE.....</b>	 <b>75</b>
<b>3.0 DETERMINANTS OF ENTREPRENEURIAL TENDENCIES AMONG</b>	
<b>TANZANIAN UNIVERSITY GRADUATES: A CASE OF UNIVERSITY OF</b>	
<b>DAR ES SALAAM .....</b>	<b>75</b>
3.1 ABSTRACT .....	76
3.2 Introduction.....	77
3.3 Entrepreneurship: A Theoretical Reflection .....	80
3.4 Methodology.....	84
3.5 Results and Discussion .....	87
3.5.1 Setting up and owning firms.....	87
3.5.2 Determinants of entrepreneurial tendencies among graduates .....	89
3.5.2.1 Entrepreneurship education and entrepreneurial tendencies .....	90
3.5.2.2 Effect of number of children on entrepreneurial tendencies .....	91
3.5.2.3 Effect of parents' education on entrepreneurial tendencies.....	91
3.5.2 Determinants of graduates' need for achievement .....	92
3.5.3 Determinants of graduates' need for autonomy and independence.....	94
3.5.4 Determinants of graduates' creative tendency.....	96

3.5.5 Determinants of graduates' calculated risk-taking .....	97
3.5.6 Determinants of graduates' drive and determination.....	99
3.6 Conclusions and Recommendations .....	100
3.7 References.....	104
 <b>CHAPTER FOUR .....</b>	 <b>112</b>
<b>4.0 BARRIERS TO BUSINESS START-UP AMONG TANZANIAN</b>	
<b>UNIVERSITY GRADUATES: EVIDENCE FROM THE UNIVERSITY OF</b>	
<b>DAR ES SALAAM .....</b>	<b>112</b>
4.1 Abstract.....	113
4.2 Introduction.....	114
4.3 Barriers to Business Start-up: A Literature Review .....	118
4.4 Using the Theory of Planned Behaviour to Assess Business Start-up .....	123
4.5 Methodology.....	125
4.6 Findings and Discussion .....	130
4.6.1 Inappropriate teaching methods.....	133
4.6.2 Lack of business experience .....	134
4.6.3 Deficiencies in the university programmes .....	135
4.6.4 Commitments to extended families .....	136
4.6.5 Bureaucratic tendencies .....	137
4.6.6 Lack of social networking .....	139
4.6.7 Limited start-up capital.....	139
4.6.8 Insufficient information on entrepreneurial opportunities.....	140
4.6.9 Lack of government support.....	141
4.6.10 Risks associated with entrepreneurship .....	142
4.6.11 Conclusion and Recommendations.....	142

4.7 References.....	147
---------------------	-----

## **CHAPTER FIVE ..... 159**

### **5.0 DEMOGRAPHIC DETERMINANTS OF TANZANIAN GRADUATES’**

#### **ENTREPRENEURIAL ENTRY INTENTIONS: THE CASE OF**

#### **UNIVERSITY OF DAR ES SALAAM..... 159**

5.0 Abstract.....	160
-------------------	-----

5.1 Introduction.....	161
-----------------------	-----

5.2 A Theoretical Review .....	163
--------------------------------	-----

5.3 Demographics and Entrepreneurial Intention.....	166
---	-----

5.4 Methodology.....	167
----------------------	-----

5.5 Findings and Discussion .....	171
-----------------------------------	-----

5.5.1 Entrepreneurial entry intention of university graduates .....	171
---	-----

5.5.2 Demographic determinants of graduates’ entrepreneurial intention .....	172
--	-----

5.5.3 The effects of age of a graduate on entrepreneurial entry intention .....	173
---	-----

5.5.4 Influence of birth order position on entrepreneurial entry intention .....	174
--	-----

5.5.5 Influence of marital status on entrepreneurial entry intention.....	175
---	-----

5.6 Conclusion and Recommendations.....	176
---	-----

5.7 References.....	178
---------------------	-----

## **CHAPTER SIX ..... 188**

### **6.0 SUMMARY, IMPLICATIONS, CONCLUSIONS AND**

#### **RECOMMENDATIONS..... 188**

6.1 Summary of the Major Findings.....	188
--	-----

6.1.1 Entrepreneurial tendencies of Tanzanian university graduates .....	188
--	-----

6.1.2 Determinants of entrepreneurial tendencies among graduates .....	189
--	-----

6.1.3 Barriers to business start-up among Tanzanian university graduates.....	189
6.1.4 Correlation between entrepreneurial education and business start-up .....	189
6.1.5 Demographic determinants of entrepreneurial entry intention .....	190
6.2 Theoretical and Policy Implications of the Findings .....	190
6.2.1 Theoretical implications .....	190
6.2.2 Policy Implications .....	191
6.3 Conclusions.....	192
6.4 Recommendations.....	194
6.4.1 Recommendations to university graduates .....	194
6.4.2 Recommendations to university educators and administrators .....	194
6.4.3 Recommendations to the Tanzania Commission for Universities.....	196
6.4.4 Recommendations to the Government of Tanzania.....	197
6.4.5 Recommendations for further studies .....	197
<b>APPENDICES.....</b>	<b>199</b>

## LIST OF TABLES

Table 1.1: Definition of model variables .....	23
Table 2.1: Entrepreneurial Tendencies of University graduates .....	57
Table 2.3: Results of the Independent Samples T- Test .....	59
Table 3.1: Definition of model variables .....	86
Table 3.2: General results of the estimated binary logistic regression model .....	92
Table 3.3: Results of the binary logistic regression for need for achievement.....	94
Table 3.5: Results of the binary logistic regression model for creative tendency .....	97
Table 3.6: Results of the binary logistic regression model for calculated risk-taking .....	99
Table 3.7: Results of the binary logistic regression model for drive and determination..	100
Table 4.1: Business start-up barriers as per status of entrepreneurship study .....	132
Table 4.2: Regression Weights: (Group number 1 - Default model) .....	133
Table 5.1: Definition of model variables .....	170
Table 5.2: University graduates' entrepreneurial entry intention .....	171
Table 5.3: Demographic determinants of graduates' entrepreneurial intention .....	172

## LIST OF FIGURES

Figure 1.1: Conceptual framework for the study .....	15
Figure 2.1: Graduates' entrepreneurial intention .....	55
Figure 2.2: Graduates' entrepreneurial intention by cohort.....	56
Figure 3.1: Setting up and owning firms .....	88
Figure 3.2: Comparing different cohorts in setting-up and owning firms.....	89
Figure 4.1: Assessing Barriers to Business Start-Up Intentions Using the Theory of Planned Behaviour .....	125



## LIST OF APPENDICES

Appendix 1: Questionnaire .....	199
Appendix 2: Checklist for Key Informants .....	207
Appendix 3: Answer Sheet for GET Test.....	208
Appendix 4: GET Test Analysis Sheet .....	209
Appendix 5: GET Test analysis sheet - Summary.....	210
Appendix 6: GET Test Interpretation Sheet .....	210
Appendix 7: Profile of Key Informants .....	211

## LIST OF ABBREVIATIONS AND ACRONYMS

AMOS	Analysis of Moment Structures
BRELA	Business Registration and Licensing Authority
BRAC	Bangladesh Rural Advancement Committee
CASS	College of Arts and Social Sciences
CFI	Comparative Fit Index
CMIN	Chi-square Minimum
C R	Critical Ratio for regression weight
EDA	Entrepreneurial Directed Approach
ECA	Ethnographic Content Analysis
EI	Entrepreneurial Intention
ERP	Economic Restructuring Programme
EPPS	Edwards Personal Preference Schedule
FASS	Faculty of Arts and Social Sciences
FCM	Faculty of Commerce and Management
FINCA	Foundation for International Community Assistance
GETT	General Enterprising Tendency Test
GET	General Enterprising Tendency
GETI	General Entrepreneurship Tendencies Index
HE	Higher Education
IFI	Incremental Fit Index
ILO	International Labour Organization
IMF	International Monetary Fund
MBTI	Myers-Briggs Type Indicator
MSEs	Micro and Small Enterprises

MUCCoBS	Moshi University College of Co-operative and Business Studies
MoCU	Moshi Co-operative University
NFI	Normed Fit Index
NSGRP	National Strategy for Growth and Reduction of Poverty
PA	Personal Attraction
PBC	Perceived Behavioural Control
PCLOSE	p of Close Fit
RFI	Relative Fit Index
RMSEA	Root Mean Square Error of Approximation
RSSC	Raosoft Sample Size Calculate
SARUA	Southern African Regional Universities Association
SACCOS	Savings and Credit Cooperative Societies
SEM	Structural Equation Modeling
SCLM	Student Centered Learning Model
SNV	Social Norms and Valuation
SRS	Systematic Random Sampling
SUA	Sokoine University of Agriculture
SPSS	Statistical Package for Social Sciences
TAESA	Tanzania Employment Services Agency
TAT	Thematic Apperception Test
TCU	Tanzania Commission for Universities
TLI	Tucker-Lewis Index
TPB	Theory of Planned Behaviour
TZS	Tanzanian Shillings
UDEC	University of Dar es Salaam Entrepreneurship Centre

UDBS	University of Dar es Salaam Business School
UDSM	University of Dar es Salaam
UK	United Kingdom
UPE	Universal Primary Education
URT	United Republic of Tanzania
USA	United States of America
US	United States
VIF	Variance Inflation Factor

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

Graduate entrepreneurship around the world is increasingly being viewed as a vital source of competitiveness and an engine for economic growth and development (Smith and Beasley, 2011; Nabi and Holden, 2008). It is extremely important in developing countries such as Tanzania whose economy is largely dependent on public sector employment and is lacking the critical mass of new start-ups. Nabi and Holden (2008) further articulate that higher education (HE) today is producing an ever increasing number of graduates which has resulted to high unemployment among graduates as explained in the subsequent sections. This is why government policy in many countries is seeking to promote business start-up as a viable career option. Studies conducted in the UK, South Africa, Malaysia, the European Union and Tanzania for example, have all shown that encouraging more graduates to pursue entrepreneurship is a top government agenda within these countries and is in line with regional economic growth targets (Anuar *et al.*, 2013; Shambare, 2013; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Mwasalwiba *et al.*, 2012; Fatoki and Chindoga, 2011; Sandhu *et al.*, 2011; European Commission, 2008; Nabi and Holden, 2008; Fielden *et al.*, 2000).

The entrepreneurship education agenda in universities, therefore, is viewed as a catalyst for stimulating entrepreneurial intentions (Pré, 2009; Global Entrepreneurship Monitor, 2011; van der Walt and van der Walt, 2008). Lekoko and Rankhumise, 2012) assert that the higher education system plays a critical role in developing entrepreneurs, in that universities have the potential to promote entrepreneurial capacities, shape enterprising mind sets and, more importantly, stimulate entrepreneurial intentions. In sum, there is a strong global drive, towards encouraging a greater proportion of students to consider and

pursue venture creation as an alternative graduate career path (Lee *et al.*, 2005; Nabi and Holden, 2008; Kubegeya, 2010; Lekoko and Rankhumise, 2012). This is because business start-up plays a central role in job creation. Many countries in the world, especially those within the sub-Saharan Africa region depend on entrepreneurial activities such as small business creation to tackle unemployment (Tayari, 2010).

Graduate unemployment or educated unemployment is a severe developmental challenge facing Tanzania. It is unemployment among people with an academic degree (Bruwer, 1998). Research undertaken has proved that the unemployment, and much more so, the underemployment of graduates, is a devastating phenomenon in the lives of graduates. High incidence of unemployment or underemployment indicates institutional ineffectiveness and inefficiency (Bai, 2006). Graduate employment is a subject which brings together the concerns of macro social policy and the interests of individual students.

Until very recently, few people ever questioned the value of higher education. However, graduates in many academic disciplines are nowadays finding jobs of lower status and even lower income than those of previous periods. Many graduates find themselves underemployed or even unemployed for extended periods of time. With the current higher education expansion and the fact that there are still not enough employment opportunities being created in the country (ILO, 2010), the number of unemployed graduates in the country is expected to increase tremendously in the near future.

According to Mcha (2012), the new entrants in the labour market in 2012 were estimated to be between 800 000 and 1 000 000 graduates, whereas URT (2010) estimates annual new job vacancies from both public and private sectors to be 630 000, with the private sector being the main contributor. Consequently, from 2001 until 2011, Tanzania

unemployment rate averaged 11.9% reaching an all time high of 12.9% in December of 2001 and a record low of 10.7% in October of 2011 (URT, 2011).

Deloitte (2013) reports that the Tanzania's unemployment rate stood at 11.7% in 2012 which, according to Rweyemamu (2013), was higher than that in Uganda which stood at 4.6% in the same year but lower than Kenya's (40%), Burundi's (35%) and Rwanda's (30%). Regardless of this, unemployment in Tanzania remains a constant threat to socio-economic development as it is higher than the tolerable rate of 4-6% (Prachowny, 2002).

Developing entrepreneurial education is one of the most important solutions to unemployment today. Entrepreneurship education and training have increased in popularity and interest is now global, not only in universities and business schools but also across higher education curricula worldwide (Kirby, 2005). In view of the importance of entrepreneurship to the growth and prosperity of the country, mainstreaming entrepreneurship in the education and training system has been emphasized by both the National Higher Education Policy (URT, 1999) and the Small and Medium Enterprise Development Policy (URT, 2003). The aim of this mainstreaming is to promote "a culture that is entrepreneurial", emphasize "individual entrepreneurial initiatives", encourage the education system "to create job creators" and respond to the changing world of science and technology and the corresponding ever-changing needs of people (Olomi and Sabokwigina, 2010).

## **1.2 Debates in the Study of Entrepreneurship**

Entrepreneurship as a field of study remains the subject of ongoing debate about its nature and how best to define it (Shane and Venkataraman, 2000) and how to measure it (Chandler and Lyon, 2001). According to Alvarez *et al.* (2010) the field of entrepreneurship has struggled since the 1970s to define itself as a field, and gain

legitimacy as a valid academic area of research. During that time, much of the work in entrepreneurship was either theoretical or used as a phenomenon as a context in which to observe other theories. While many definitions of “entrepreneur” existed within literature prior to the 1970s, the essential act of entrepreneurship is relatively a new entry; its debates became hot around the 1980s (Solymossy, 1998).

Among the earliest definitions of an entrepreneur is that of an Irish economist named Richard Cantillon (around 1700) who described the individual as a rational decision maker who assumed risk and provided management for the firm (Ismail, 2009). Schumpeter (1954) who is frequently cited as the father of entrepreneurship viewed an entrepreneur as a force of creative destruction, who formed new business ventures and drove technological change that frequently led to the replacement of existing technologies, processes and practices within the economy. Shane (2004) has identified the key qualities of an entrepreneur as comprising discovery, evaluation and exploitation of opportunities in which survival, growth and profit are key operational measures that can be used to define entrepreneurship.

Ismail (2009) further argues that an entrepreneur was defined in simple terms as an ‘ordinary individual who does extraordinary things which other individuals hesitate to do. Such an ordinary individual can easily be distinguished from other individuals as he or she can implement well-defined business ideas without fear of taking calculated risks (van der Berg, 2007). Some scholars define entrepreneurship as creating and building something of value from practically nothing, that is, the process of creating or seizing an opportunity and pursuing it regardless of the resources currently controlled (Nieman *et al.*, 2003).



Owing to the lack of concurrence on the definition of “entrepreneur” and “entrepreneurship”, it is obligatory to operationally define the terms. For this reason, the definitions of “entrepreneur” and “entrepreneurship” as used by Gartner (1988) are applied. According to Gartner (1988), an “entrepreneur” is regarded as an individual that creates a new venture. An entrepreneurial firm is then defined as either a new or an existing firm that embarks upon creating new and innovative products or services, presenting unique and valuable combinations of resources in an uncertain and ambiguous environment (Solymossy, 1998). Entrepreneurship is thus defined as the process whereby individual (s) start and develop new ventures or business units. This can include an entrepreneurial individual acquiring a franchise or an existing business or firm (Gartner, 1984). Some researchers further contend that an entrepreneurial definition must be limited to factors of growth (e.g. Sexton *et al.*, 1997; Begley, 1995). Others like Solymossy (1998) maintain that growth is a means of identifying superior performing entrepreneurs rather than providing a definitional boundary constraint.

There is considerable debate about whether an entrepreneur is "born" or "made." That seems to be a question and a source of much of the contention (Whitlock, 2004). The debate arises from examples of few giant entrepreneurs who actually appear to have been born to be entrepreneurs, for instance Richard Branson and Bill Gates. However, most scholars would concur that to be successful, the right kind of support, assistance, mentoring and even training is necessary (Whitlock, 2004; Kirby, 2005), and the debate has now shifted to whether entrepreneurship education could turn an individual into an entrepreneur. Likewise, the debate is about what should be taught and how it should be taught (Lourenco and Jones, 2006). Given this hot debate, it is concluded here that entrepreneurs can be created and that entrepreneurship education can turn an individual into an entrepreneur.

According to Mazzarol (2007), entrepreneurship ought to be taught and applied to the real business activity rather than via theory, and its multi-disciplinary nature should be considered. Nowadays, within most Universities the teaching of entrepreneurship is a subset of the wider academic discipline of management. A strong focus within entrepreneurship education is upon the process of new venture creation. There is a focus on the student learning to apply a set of tools or frameworks to assist in screening the business opportunities and then developing business plans or cases that can be applied. At the University level there is also a strong focus given to the study of the entrepreneur as a theoretical concept, focusing on the psychological factors likely to trigger entrepreneurship as well as the environmental conditions that can enhance or impede its progress (Jack and Anderson, 1999).

### **1.3 Problem Statement**

University education and training have the potential to prepare students to gradually understand and integrate themselves into the world of work upon leaving the university. This is because entrepreneurship education not only helps an individual to be self-employed, but also increases his or her employability skills. The entrepreneurship education agenda in universities, therefore, is viewed as a catalyst for stimulating entrepreneurial intentions (Pré, 2009; Global Entrepreneurship Monitor, 2011; van der Walt and van der Walt, 2008). Lekoko and Rankhumise (2012) assert that the higher education system plays a critical role in developing entrepreneurs, in that Universities have the potential to promote entrepreneurial capacities, shape enterprising mind sets and, more importantly, stimulate entrepreneurial intentions.

Mindful of the role of university education in promoting entrepreneurship in Tanzania, the government has been expanding university education by building new ones and allowing

the private sector to offer university education. As a result, the higher education system in Tanzania has grown from only one institution of higher education (a University College) in 1961 to more than 200 tertiary training institutions, both universities and non-universities (TCU, 2009). This has resulted into an enormous increase in the number of graduates who enter the labour market annually as noted in section 1.1 above. The increasing number of graduates has gone beyond the available job opportunities for university graduates (Kilasi, 2011). Entrepreneurship in a form of new venture creation is among practicable solutions to the problem of graduates' unemployment facing the country.

Several studies have linked the problem of graduates' unemployment in Tanzania to lack of entrepreneurship education and training (Kilasi, 2011; Nkirina, 2010; Olomi, 2006). There is limited evidence to support this view as the number of universities and non-university training institutions offering entrepreneurship and other courses countrywide is on increase. For instance, many universities and colleges in the country today have entrepreneurship development centres and offer either a course or a programme (degree or diploma, etc) on entrepreneurship at an undergraduate and/or post-graduate level (UDSM, 2011; Mzumbe University, 2005; MUCCoBS, 2012; SUA, 2013; Tumaini University Iringa University College, 2013; Zanzibar University, 2011; Jordan University College, 2013).

Despite the above developments in entrepreneurship training and difficulties graduates encounter in finding jobs, very few graduates do opt for business start-up as an alternative career (Al-Samarrai and Burnell, 2006; Al-Samarrai and Burnell, 2003; Mukyanuzi, 2003; Mwasalwiba *et al.*, 2012). This suggests that there is a need to study the level of entrepreneurial tendency of graduates in order to establish whether graduates in the

country have the required entrepreneurial tendency. This study was set to explore the impact of entrepreneurship education on business start-up by assessing entrepreneurial tendencies and barriers to business start-up among university graduates in Tanzania with reference to the University of Dar es Salaam.

#### **1.4 Justification of the Study**

In her vision, Tanzania aspires to be a country of high quality and good life for all, good governance and the rule of law, and building a strong and resilient economy that can effectively withstand global competition by the year 2025. By measuring personal ‘tendencies’ commonly associated with enterprising persons, investigating factors influencing enterprising tendencies, determining the relationship between entrepreneurship education and self employment as well as identifying barriers to self employment among university graduates in Tanzania; this study makes a huge contribution towards knowledge and literature. First, it has established the level of entrepreneurial tendencies of university graduates and highlighted methods and techniques university trainers could use to improve entrepreneurial tendencies of their graduates. Second, it has exposed deficiencies in the university curricula and proposed ways which universities can apply to create demand-driven curricula. Third, it has shown areas where policy makers could make more emphasis in supporting future graduates to plan, start and run their own businesses. Fourth, this study has highlighted key barriers to business start-up among graduates and proposed short and long term policy strategies which can be used to overcome the barriers.

To this end, this study supports the efforts by the Tanzanian government through the 1997 Employment Policy and National Strategy for Growth and Reduction of Poverty (NSGRP) of creating conducive environment for entrepreneurship and self-employment in the

country and hence contribute significantly towards finding solutions to the problem of unemployment, underemployment and poverty among graduates in Tanzania. The findings from this study will also help universities in Tanzania develop suitable entrepreneurship programmes to prepare students for entrepreneurship as a career option.

## **1.5 Objectives**

### **1.5.1 Main objective**

The main objective of this study was to investigate the impact of entrepreneurship education on business start-up. In so doing the study measured entrepreneurial tendencies of Tanzanian university graduates using the University of Dar es Salaam graduates as a case in point.

### **1.5.2 Specific objectives**

Specifically this study sought to:

- i) Establish whether or not university level entrepreneurial training had improved entrepreneurial tendencies of graduates;
- ii) Assess determinants of entrepreneurial tendencies amongst university graduates;
- iii) Identify socio-economic barriers to business start-up among university graduates;
- iv) Determine whether prior exposure to entrepreneurship education is associated with entrepreneurial entry intention; and
- v) Determine influence of demographic variables on graduates' entrepreneurial entry intentions.

## **1.6 Research Questions and Hypotheses**

This study applied a mixed methods approach whereby both qualitative and quantitative techniques of gathering and analyzing data were used. To this end, it was imperative to use both research questions and hypotheses. Research questions were mainly used in guiding the qualitative approach whereas hypotheses were applied in inferential analysis.

### **1.6.1 Research Questions**

The following questions were answered:

- i) How inclined are Tanzanian university graduates towards entrepreneurship?
- ii) What factors mostly influence university graduates entrepreneurial tendencies?
- iii) What barriers mostly discourage Tanzanian university graduates from engaging in entrepreneurial activities?

### **1.6.2 Hypotheses**

It was hypothesised that:

- i. There is no significant difference in the level of entrepreneurial tendencies among graduates who had studied entrepreneurship and those who had not studied entrepreneurship during their undergraduate studies;
- ii. There is no association between prior-exposure to entrepreneurship education and university graduates' entrepreneurial entry intention;
- iii. Age of university graduates does not have significant chances on determining their entrepreneurial entry intentions;
- iv. Sex of university graduates does not have significant chances on determining their entrepreneurial entry intentions;
- v. Marital status does not have significant chances on determining the entrepreneurial entry intentions of university graduates ;

- vi. Individual's birth order position does not have significant chances on determining their entrepreneurial entry intentions of university graduates;
- vii. Ethnic origin of graduates does not have significant chances on determining their entrepreneurial entry intentions; and
- viii. Household size of university graduates does not have significant chances on determining their entrepreneurial entry intentions.

### **1.7 Theoretical and Conceptual Framework for the Study**

This section presents an overview of theories used in this study. The theories presented here include: The Theory on Need for Achievement by David McClelland, The Marginal and Tension Theory by Robert Park, Joseph Alois Schumpeter's Theory of Innovation and the Theory of Planned Behaviour (TPB) by Ajzen. These theories are analysed in sub-section 1.6.1, and the conceptual framework is presented and explained in sub-section 1.6.2.

#### **1.7.1 Theoretical framework**

David McClelland (1961), in his attempt to explain the science of entrepreneurship, developed the Theory on Need for Achievement. The need for achievement (N-Ach) is the extent to which an individual desires to perform difficult and challenging tasks successfully. According to McClelland (1961), one would expect a relatively greater amount of entrepreneurship in a society if the average level of need for achievement in the society is relatively high. He wrote: "the presumed mechanism by which n-Achievement level translates itself into economic growth is the entrepreneurial class. If the n-Achievement level is high, there will presumably be more people who behave like entrepreneurs".

Another scholar who attempted to explain the art of entrepreneurship is Robert Park. In his Theory of Marginal and Tension, Robert Park (1928) states that a marginal man is one whose fate has condemned him to live in two societies. The two societies are not merely different but antagonistic cultures like occidental and oriental cultures. The Marginal and Tension Theory of entrepreneurship fits into the context of this study because Tanzanian graduates today, come out of universities as marginal citizens threatened by unemployment in labour markets. Marginality as a feeling or attitude of being threatened by joblessness, can explain the attitude of creativity and self-employment not because they want to be self-employed, but as a defensive mechanism against marginalization. However, this is debatable and may be pursued as a further research concept.

Most scholars have concurred with Schumpeter on his theory of entrepreneurship and innovation. In his theory, Schumpeter (1954) argues that the innovation and technological change of a nation comes from the entrepreneurs, or wild spirits. Hence an entrepreneur is seen as the one who perceives the opportunities to innovate and carry out new combinations or enterprises. What guides entrepreneurs in this task is the anticipation of profits and revenues in excess of the expenses to bring goods to market and the avoidance of losses.

The vital theory in this study was the Theory of Planned Behaviour (TPB) by Ajzen (1991). TPB is much more appropriate in predicting and understanding people's intentions to engage in various activities. Main postulation: Human behaviour is planned. In his TPB, Ajzen (1991) explains intentions by means of attitudes, perceived behavioural control, and subjective norms. Attitudes refer to the degree to which a person has a favourable appraisal of the behaviour. Subjective norm refers to the perceived social pressure to perform the behaviour.



Perceived behavioural control refers to the perceived ease of performing the behaviour and to the perceived control over the outcome of it. The theory of planned behaviour assumes that rational considerations govern the choices and behaviours of individuals. Specifically, behaviour is determined by the intentions of individuals, their explicit plans or motivations to commit a specific act.

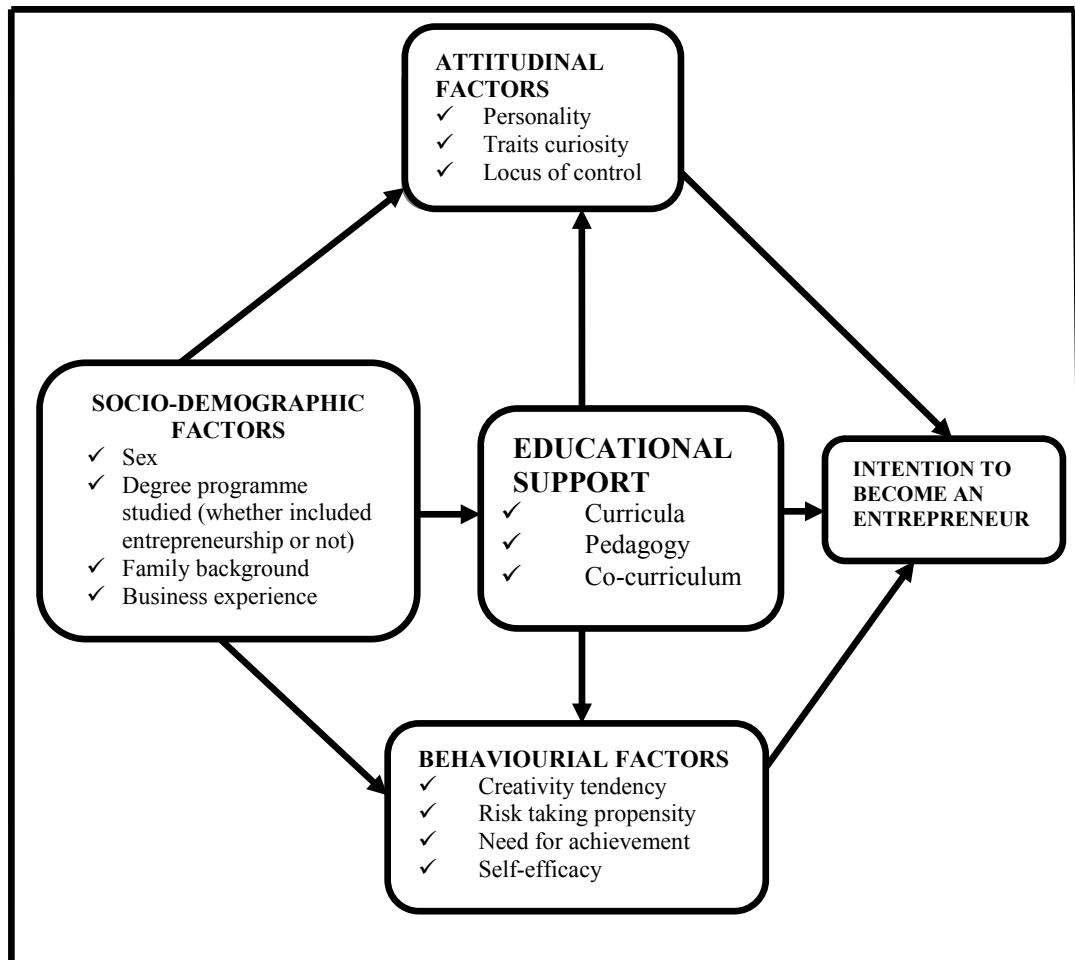
Demographic determinants of entrepreneurial entry decisions as well as the perceived barriers to entrepreneurship are best theorized using the TPB. Demographics affect attitudes, social norms, or perceived behavioural control and are most likely to affect intentions and behaviour, e.g. the degree to which significant individuals, such as parents, spouses, or colleagues, condone this act, called subjective norms, also affects intentions. The perceived importance of the parents, spouses, or colleagues affects the extent to which their approval will shape intentions. TPB is relevant in explaining barriers to business start-up because it remains open to the influence of exogenous factors that may play a role in the development of beliefs and attitudes.

### **1.7.2 Conceptual framework**

Carree and Thurik (2003) argue that entrepreneurial activity originates at an individual level and is always traceable to a single person, the entrepreneur. Entrepreneurship is, hence, induced by an individual's attitudes or motives, skills and psychological endowments. The conceptual framework for this study is built based on the Theory of Planned Behaviour by Ajzen (1991) and the previously presented model on determinants of entrepreneurial intentions and behaviour by Bird (1988), Krueger and Carsrud (1993), Shapero and Sokol (1982) and Kadir *et al.* (2013). This conceptual framework was first put forward by Bird (1988) and thereafter expanded by others. It explains that entrepreneurial intention among students (future graduates) as being influenced by three

main factors. These are: attitudinal factors, educational support and behavioural factors as shown in Fig. 1.1.

The dependent variable in this research is intention of entrepreneurship. Intentionality can be defined as a state of mind directing a person's attention, experience and action towards a specific path to achieve something (Bird, 1988). Therefore, intention is a main predictor of planned entrepreneurial behaviour (Kruger and Carsud, 1993). The independent variables employed in this framework are attitudinal factors (personal traits, traits curiosity, risk taking and locus of control); behavioural factors (creativity tendency, risk taking propensity, need for achievement and self-efficacy) and educational support (curricula, pedagogy and co-curriculum). Drive *et al.* (2001), state that tertiary education can provide valuable additional entrepreneurial capacity, particularly for high-potential entrepreneurs. For instance, Nkirina (2010) and Kilasi (2011) insist that, in order for the present system of education in Tanzania to produce job creators and not job seekers, it is very important to integrate entrepreneurship education in the education system and much more specifically into the vocational training system. The socio-demographic factors consist of sex, programme studied, family background and business experience.



**Figure 1.1: Conceptual framework for the study**

**Source:** Adapted from Bird, 1988; Krueger and Carsrud, 1993; Shapero and Sokol, 1982; Kadir *et al.*, 2013.

## 1.8 General Methodology

In this sub-section, study location, research design, sampling procedures tools and methods of data collection and analysis are presented and discussed.

### 1.8.1 Study location

The study involved graduates from the University of Dar es Salaam especially those who had graduated from the University of Dar es Salaam Business School (UDBS), former Faculty of Commerce and Management (FCM), and the College of Arts and Social Sciences (CASS), former Faculty of Arts and Social Sciences (FASS) from the academic year 2000/2001 to 2010/2011.

The University of Dar es Salaam was selected for this study because of its long standing training in entrepreneurship as compared to other universities in the country whereby entrepreneurship training is still at an infancy stage. The UDBS and the CASS were purposively selected. The UDBS was included in this study because it was among schools where entrepreneurship courses had been mainstreamed into degree curricula whereas in the CASS the entrepreneurship courses had not been mainstreamed into degree curricula.

### **1.8.2 Research design**

A cross-sectional research design was employed. It was preferred to a longitudinal study design because of limited resources such as finance and time available to pursue the study. In a cross-sectional study respondents are interviewed at a single point in time (Mann, 2003) which serves money and time. However, in a longitudinal study, researchers conduct several observations of the same subjects over a period of time, sometimes lasting many years (Institute for Work and Health, 2009). Cross-sectional design was also preferred as it supported a variety of analytical techniques including quantitative and non-quantitative analyses.

Another merit of a cross-sectional study design is that it allows researchers to compare many different variables at the same time. It was possible for example, to look at age, sex, marital status of graduates and entrepreneurship study in relation to the desire to start and own firms.

### **1.8.3 Sampling procedures**

An individual graduate formed the sampling unit. The sample size was 308 graduates, out of whom 119 were selected among UDBS graduates and 189 were selected among CASS graduates. A sample size is normally determined by three things, that is, the confidence level, the margin of error and the skewness level (Dodhia, 2007; Naing *et al.*, 2006).

It was calculated using the Raosoft Sample Size Calculator (RSSC) which, among other things, determines confidence level, margin of error and skewness level. The sample size was considered adequate at 95% confidence interval, 5.5% margin of error and 50% skewness level. It is important to note as well that this sample size represents 64.2% response rate.

Systematic random sampling (SRS) was used to get the respondents. First, a list of graduates was obtained from the UDBS and CASS. Then, the sampling interval or the  $k^{\text{th}}$  element was determined in each list using the formula  $k = (\text{population size}/\text{sample size})$ . From the UDBS list the  $k^{\text{th}}$  element was obtained by dividing 2436 by 119 which is approximately equal to 20, and from the CASS it was obtained by dividing 6889 by 189 which produced 36.

Thereafter, the first element from each list was randomly chosen from within the first to the  $k^{\text{th}}$  element, that is, from UDBS the first element was chosen among the first 20 elements and from CASS it was picked from among the first 36 elements. This was made possible by writing the serial numbers of the graduates (1 to 20 for UDBS and 1 to 36 for CASS) on separate pieces of paper and then folding the pieces. The folded pieces were then mixed up and then one picked from each cluster. The remaining 306 (118 UDBS and 188 CASS) were picked systematically after each  $20^{\text{th}}$  and  $36^{\text{th}}$  elements respectively.

Graduates' contacts were obtained from the university alumni department. Sampled graduates whose contacts were missing in the alumni list were dropped out of the sample and the systematic random sampling was repeated. Unfortunately, 23 sampled graduates (9 from CASS and 14 from UDBS) had their contacts missing. Graduates were called before physically contacting them in order to ascertain their availability.

Only graduates who were living within the country were involved in the study. Systematic random sampling was repeated in order to replace the sampled graduates who were not alive or who were not living in the country at the time of this study. Luckily, none of them was deceased, but seven of them (two from CASS and 5 from UDBS) were not living in the country.

#### **1.8.4 Types and sources of data**

This study gathered the following data: Socio-demographic profile of respondents such as age, sex, marital status, household size, number of children in the household and degree programmes studied. Others were: respondents' entrepreneurial education, birth order position, ethnic origin, and months spent jobless. The study also collected data on parents' or guardians' occupations, parents' alien status, children's they had, parents' education levels as well as time the graduates had spent in search for permanent employment.

Other important data included scores of graduates on the five attributes of the General Enterprising Tendencies (GET) test, that is, the need for achievement, the need for autonomy and independence, the creative tendency, the calculated risk taking propensity as well as the drive and determination. Similarly, the study gathered data on the socio-economic barriers to business start-up. The listed data were obtained from the respondents using survey method and interviews whereby a self-administered questionnaire and a key informant interview checklist were employed. These tools and methods are described in detail in the subsequent section.

#### **1.8.5 Tools and methods of data collection**

A self-administered questionnaire which included the GET Test (Appendix 1) and key informant interview checklist (Appendix 2) were applied in collecting data. A questionnaire based survey and key informant interviews were administered differently,

with the questionnaire preceding the key informant interviews because the questionnaire was the main tool for data collection and involved a large sample as compared to key informant interviews.

The questionnaire consisted of three sections, namely section A, B and C. Section A had 16 questions and was set to explore the background information of the respondents on issues related to sex, age, graduation year, marital status, ethnic origin, parents' information and more others. Section B was structured in order to assess barriers to self-employment among University graduates, and it consisted of 14 questions while section C presented the GET test questions. In its original form the GET test consists of a set of 54 questions which together measure enterprising tendency through the assessment of five enterprising characteristics, namely, calculated risk taking, creative tendency, high need for achievement, high need for autonomy and internal locus of control or drive and determination (Caird, 1991; Garalis, 2008) as shown in (Appendices 1, 3, 4, 5 and 6).

This study used the GET test as it was in its original form, but it was slightly modified in terms of language and examples in it to fit the Tanzanian context. These modifications did not alter the GET test and, therefore, the original standard cut-off point was used. Since GET test was included in the main questionnaire, the same internal consistence tests were used. Respondents were required to indicate the extent to which they agreed or disagreed with each of the questions by ticking in the appropriate boxes. Individuals' scores from each trait were then summed up to get the entrepreneurial tendency as follows: the need for achievement, those who scored 9 to 12 points had high while respondents who scored below 9 had low need for achievement.

Concerning the need for autonomy and independence, respondents who scored between 4 to 6 points were regarded to have high need for autonomy and independence as compared to those who scored below 4 who had low need for autonomy and independence. On the creative tendency, graduates with 8 to 12 scores had high, and those who scored below 8 had low entrepreneurial tendency. With regard to the calculated risk taking propensity, graduates whose scores ranged from 8 to 12 had high whereas those whose scores were below 8 points were considered to have low risk taking propensity. Graduates who scored 8 to 12 on the drive and determination trait were judged to have high and those with scores below 8 points had low drive and determination (Appendices 4 and 5).

In addition, 10 key informants were interviewed. In selecting them, first a few experts working in the field of entrepreneurship were consulted to recommend the most informative, experienced, and analytical individuals. Then, informants who had been recommended by more than one expert were selected. This increased the likelihood that the informants would be useful for the study. In this regard, the key informants who had good knowledge on Tanzanian entrepreneurship development, education and unemployment issues were chosen. Out of the selected key informants, six were entrepreneurs and four were entrepreneurship experts. Information gathered through these interviews was used to triangulate the information obtained through the questionnaire. The interviews were conducted using face-to-face technique whereby each interview took about one hour and was tape recorded.

#### **1.8.6 Data analysis procedures**

To measure entrepreneurial tendencies of university graduates, descriptive statistics were applied in analysing quantitative data which were collected using the GET Test. Graduates entrepreneurial tendencies were then compared between those who had studied



entrepreneurship and those who had not studied entrepreneurship using the independent-samples t-test. The independent-samples t-test was preferred for this study because it is statistically more robust in comparing means between two independent samples than the Man-Whitney U-test.

The independent-samples t-test (or independent t-test, for short) compares the means between two unrelated groups on the same continuous, dependent variable. According to Fagerland (2012), for the independent-samples t-test to be applied, a number of assumptions need to be met. The most important ones are: One, the dependent variable should be measured on a continuous scale, that is, interval or ratio level; two, independent variable should consist of two categorical independent groups.

Other key assumptions include independence of observations, which means that there is no relationship between the observations in each group or between the groups themselves. A fourth assumption entails that; there should be no significant outliers. Outliers are simply single data points within data sets that do not follow the usual pattern. Perhaps the most fundamental assumption is the fifth one which requires that dependent variable should be approximately normally distributed for each group of the independent variable (Fagerland, 2012). The last assumption necessitates homogeneity of variances.

Normality of data was tested using the Shapiro-Wilk Test of Normality which was performed using the SPSS's explore command.

At first some of the data (Age, scores on the need for achievement, the need for autonomy and independence, the creative tendency, the calculated risk taking and the drive and determination ) were not normally distributed as the test produced  $p < 0.05$ .

However, after transforming those data using the Lg10 function under the SPSS's transform variables command, the data produced a  $p > 0.05$  which implied that the data in question were normally distributed. Examples of studies which applied independent-samples t-test to compare means are those of Sarjou *et al.* (2012), Winke *et al.* (2010), Maysami and Ziemnowicz (2007) and Olmsted (2008).

The effects of multicollinearity were tested using Variance Inflation Factor (VIF). Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated (Katundu *et al.*, 2014). In this situation, the coefficient estimates may change erratically in response to small changes in the model or the data (Belsley *et al.*, 2005). Multicollinearity is a problem if the VIF is greater than 10 (Belsley *et al.*, 2005; Wooldridge, 2001). The VIF test in this study showed that all the variance inflation factors were smaller than 2, indicating that there were no serious multicollinearity problems. Therefore, all variables with VIF of 10 and above were not included in the model.

The association between prior-exposure to entrepreneurship education and university graduates' propensity towards starting their own businesses was tested using the lambda and Goodman and Kruskal tau (based on chi-square approximation). In order to identify the determinants of entrepreneurial tendencies and the demographic determinants of graduates' entrepreneurial entry intention, the binary logistic regression model was applied. The model was applied to test the extent to which socio-demographic and economic factors such as entrepreneurship education, age, sex, birth order position of a respondent, parents/guardian occupation, parents/guardian alien status, and ethnicity influence graduates' enterprising tendencies. Graduates' Enterprising Tendencies was the binary dependent variable (measured as 1 for the probability of getting high scores on the

attribute and 0 if otherwise). For more definition of variables see Table 1.1. The binary logistic regression is a generalized linear model used for binomial regression. In this study, the following binary logistic model was used:

$$\text{Logit}[p(x)] = \log\left[\frac{p(x)}{1-p(x)}\right] = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \varepsilon \dots \dots \dots 1$$

Logistic regression involves fitting an equation of the following form to the data:

$$\text{Logit}(p_i) = \alpha + \beta_1 x_{1,i} + \beta_2 x_{2,i} + \beta_3 x_{3,i} + \dots + \beta_p x_{p,i} + \varepsilon \dots \dots \dots 2$$

Where:

$\text{Logit}(p_i) = Y$ ; is binary and represents the probability of having high or low entrepreneurial tendencies, coded as 0 or 1 respectively

$\beta_1 - \beta_p$  = Regression coefficients

$\alpha$  = Intercept

$x_{1,i} - x_{p,i}$  = Independent variables or predictor variables

$\varepsilon_i$  = Error term

**Table 1.1: Definition of model variables**

Variable		Variables definition and unit of measurement
<b>Dependent variable</b>		
Entrepreneurial tendencies		Binary: Y = 0 Low entrepreneurial tendencies Y = 1 High entrepreneurial tendencies
<b>Independent variables</b>		
AGE	Age of the respondent in years	
SEX	Sex of the respondent (1 if Female, 0 if Male)	
EED	Respondents' entrepreneurship education (dummy, measured as 1 if studied entrepreneurship; 0 if not)	
BOP	Birth order position of a respondent	
POC	Parents/guardian occupation (dummy, 1 if self employed; 0 if otherwise)	
ETH	Ethnic origin of a respondent (dummy, 1 if mchagga/mhindi/Mkinga; 0 if otherwise);	
NCP	Total number of children parents had	
MSJ	Months a graduate spent jobless	
PED	Parents' education level measured in number of years spent schooling	
TFG	Time since first graduation in months	
MRT	Marital status of the respondent (1 if married; 0 if otherwise)	
DPS	Degree Programme studied (dummy, 1 if business related; 0 f otherwise)	

The binary logistic regression was preferred in analyzing data because the dependent variable was dichotomous, that is, high or low entrepreneurial tendencies based on its

merits compared to others. Logistic regression is regularly used rather than discriminant analysis when there are only two categories of the dependent variable. Logistic regression is also easier to use with SPSS than discriminant analysis when there is a mixture of numerical and categorical independent variable, because it includes procedures for generating the necessary dummy variables automatically, requires fewer assumptions, and is more statistically robust (O'Connell, 2005). The use of binary logistic regression in education research and higher education research in particular is very popular (see Saha, 2011; Peng and So, 2001; Okun *et al.*, 1996). Additionally, the Pearson chi-square test and cross-tabulations were used to compare the entrepreneurial entry intention between graduates who had studied entrepreneurship and those who had not studied entrepreneurship.

The socio-economic barriers to business start-up were identified using the Structural Equation Modeling (SEM) whereby confirmatory factor analysis was performed using Analysis of Moment Structures (AMOS) and the Statistical Package for Social Sciences (SPSS) software. In order to consistently identify and measure barriers to entrepreneurship as experienced by university graduates, the author drew insights from past research (Shambare, 2013; Ahmad and Xavier, 2012; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Sandhu *et al.*, 2011; Global Entrepreneurship Monitor, 2011; Yaghoubi, 2010).

Out of these studies, Shambare's (2013) barrier to entrepreneurship model was considered to be the most relevant in explaining the Tanzanian context under the study. For that reason, specified barriers described in the study were incorporated with those from Ahmad and Xavier (2012), Sandhu *et al.* (2011) and Yaghoubi (2010); from which a set of theoretical entrepreneurship barriers was developed (into a questionnaire for this study) and subsequently tested.

As mentioned in the previous paragraphs, the questionnaire consisted of three sections with section B presenting questions on barriers to business start-up. This section had 13 questions measuring the identified barriers (inappropriate teaching methods, lack of business experience, limited start-up capital, deficiencies in the university programmes, fear of failure, lack of government support and lack of social networking). The section also provided an opportunity of listing any other important factor (s) which respondents felt were not captured by the questionnaire. In this regard, barriers such as bureaucratic tendencies, commitments on extended families, market constraints, risks associated with entrepreneurship and insufficient information on entrepreneurial opportunities were included in the model and tested.

Pearson's chi-square was used to test whether graduates who had not studied entrepreneurship and those who had studied entrepreneurship reported different start-up barriers. Qualitative data were analyzed using Ethnographic Content Analysis (ECA). ECA was used to supplement the quantitative analysis which was the main method. First qualitative information from key informant interviews was transcribed. From these transcriptions key themes, concepts or phrases related to barriers to business start-up were identified. Abbreviated codes such as few letters, words, or symbols were assigned to key themes such as experience, capital, government support, and start-up information. This helped to organize the data into common themes that emerged in response to dealing with specific items. These themes were later organized into coherent categories which summarised barriers to business start-up among graduates. Qualitative information was then integrated with the quantitative information to provide a meaningful conclusion.

### **1.9 Reliability and Validity of the Questionnaire**

The instrument was tested for internal consistency using Cronbach's alpha ( $\alpha$ ) coefficient. A Cronbach's alpha of 0.670 was obtained indicating an acceptable reliability measure for

the questionnaire. It was also prudent to test both content and face validity. The former was assured by means of a comprehensive literature review; the latter was assured through consultative discussions with practising entrepreneurs and academics.

### **1.10 Limitations of the Study**

The results of this study are at best related to the university of Dar es Salaam graduates, particularly those from CASS and UDBS. Furthermore, the study did not consider cultural variations of graduates as they were scattered all over the country and, hence, culture might have some influence on the way they perceived entrepreneurship. The variables studied may also be interdependent making it difficult to clearly establish the impact of each. For example, students may have joined the university with prior exposure to entrepreneurship and it could be that these prior conditions were the source of entrepreneurial intentions they had, regardless of type of degree programme attended.

This study also encountered a number of methodological limitations such as self-reported data and attribution which, if not addressed, would have affected the validity of the research findings. Regarding self-reported data, this study relied on information provided by the respondents. These self-reported data could rarely be verified independently. In other words, the researcher had to record what people said, whether in interviews or on questionnaires, at face value. However, these data contain potential sources of bias that should be noted as limitations. One limitation is selective memory that is, remembering or not remembering experiences or events that occurred at some points in the past, such as the education of the parents, income of the parents, months spent without a job, as well as parents' main occupation.

Another methodological limitation was attribution. Attribution refers to the act of attributing positive events and outcomes to one's own agency but attributing negative

events and outcomes to external forces. For example, success in entrepreneurship was attributed to one's good performance and hard work, while failure to start a business or low entrepreneurial entry was attributed to government failure to provide essential support.

The impacts of methodological limitations were minimized through triangulation of data in which information gathered through a questionnaire based survey were verified using interviews. To control the influence of culture, forced-choice items were applied. This technique generated questions that were equal in desirability to control responses in one direction or another.

### **1.11 Ethical Consideration**

This study involved human beings. Therefore, it was necessary to have permission of the people who were to be involved in the study. In social science research, a code of ethical principles requires researchers to obtain an informed consent from all respondents, protect respondents from harm and discomfort, treat all information confidentially, and explain the experiment and the results to the respondents after research completion (Katundu *et al.*, 2014). In order to obtain an informed consent from all respondents, a section named "introduction" was created in a questionnaire/checklist which explained, among other things, the purpose of the study and assured them confidentially of their responses as well as asking their permission to fill in the questionnaire or respond to interview questions.

### **1.12 Organization of the Thesis**

This thesis is organised in six chapters. The first chapter consists of the extended abstract and introduction of the overall theme of the thesis; it offers a description of the commonality of concepts presented in separate papers, problem statement and justification

of the study. Other sub-sections in chapter one include: the objectives of the study, hypotheses, the conceptual framework, and the general methodology which presents a description of the study design, tools and methods applied in conducting the research for this thesis. Limitations of the study, reliability and validity of the tools and ethical considerations are also provided in this chapter. Chapters two, three, four, and five contain manuscripts prepared from the findings of this study, which will be submitted to different internationally recognized journals for publications. Lastly, chapter six presents a summary of the major findings, theoretical and policy implications of the study findings, conclusions and recommendations.



### 1.13 References

- Ahmad, Z. S. and Xavier, S. R. (2012). Entrepreneurial environments and growth: Evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship* 4 (1): 50 – 69.
- Ajzen, I. (1991). The theory of planned behaviour. *Journal of Organizational Behaviour and Human Decision Processes* 50: 179-211.
- Al-Samarrai, S. and Burnell, P. (2003). Where has all the education gone in Africa? Employment outcomes among secondary school and university leaver.[<http://www.eldis.org/vfile/upload/1/document/0708/DOC15037.pdf>] site visited on 12/5/2012.
- Al-Samarrai, S. and Burnell, P. (2006). Where has all the education gone in Africa? Employment outcomes among secondary school and university leaver. [[https://mpira.ub.uni-muenchen.de/128/1/MPRA\\_paper\\_128.pdf](https://mpira.ub.uni-muenchen.de/128/1/MPRA_paper_128.pdf)] site visited on 2/3/2012.
- Alvarez, S. A., Barney, J. B. and Young, S. L. (2010). Debates in entrepreneurship: opportunity formation and implications for the field of entrepreneurship. [[www.springer.com/cda/content/.../cda.../9781441911902-c1.pdf?...0..](http://www.springer.com/cda/content/.../cda.../9781441911902-c1.pdf?...0..)] site visited on 26/03/2014.
- Anuar, A., Nasir, I. N. M., Rahman, F. A. and Sadek, D. M. (2013). Barriers to start-up the business among students at tertiary level: A case study in northern states of peninsular Malaysia. *Asian Social Science* 9 (11): 290-299.

- Bai, L. (2006). Graduate unemployment: Dilemmas and challenges in china's move to mass higher education. *The China Quarterly* 185: 128-144.
- Begley, T. M. (1995). Using founder status, age of firm, and company growth rate as the basis for distinguishing entrepreneurs from managers of smaller business. *Journal of Business Venturing* 10: 249-263.
- Belsley, D. A., Kuh, E., & Welsch, R. E. (2005). *Regression Diagnostics: Identifying Influential Data and Sources of Collinearity*. John Wiley & Sons, Inc. New York. 300pp.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intentions. *Academy of Management Review* 13: 442-54.
- Bruwer, J. (1998). First destination graduate employment as key performance indicator: Outcomes assessment perspectives. [<http://www.aair.org.au/app/webroot/media/pdf/AAIR%20Fora/Forum1998/Bruwer.pdf>] site visited on 06/01/2014.
- Caird, S. (1991). Testing enterprising tendency in occupational groups. *British Journal of Management* 2 (4):177-187.
- Carree, M.A. and Thurik, A.R. (2003). The impact of entrepreneurship on economic growth. *Handbook of Entrepreneurship Research I*: 437-471.
- Chandler, G. N. and Lyon, D. W. (2001). Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship Theory & Practice* 25 (4): 101-113.

- Deloitte (2013). East Africa budget, growing steady economic outlook 2013. [[https://www.deloitte.com/assets/DcomKenya/Local%20Assets/Documents/Budget% 202013/EconomicOutlook2013.pdf](https://www.deloitte.com/assets/DcomKenya/Local%20Assets/Documents/Budget%202013/EconomicOutlook2013.pdf)] site visited on 30/06/2014.
- Dodhia, R. M. (2007). Sample size calculations. [[http://www.ravenanalytics.com/Articles/Sample \\_ Size \\_ Calculations.htm](http://www.ravenanalytics.com/Articles/Sample_Size_Calculations.htm)] site visited on 20/7/2012.
- Ebewo, P. E. and Shambare, R. (2012). The reason business plans of start-up ventures are rejected by South African Financiers. [[www.imraweb.org/imra2012cpb.pdf](http://www.imraweb.org/imra2012cpb.pdf)] site visited on 11/04/2014.
- European Commission (2008). Best procedure project: Entrepreneurship in higher education, especially in non-business studies. [[ec.europa.eu/enterprise/policies/sme/files/support.../entr\\_highed\\_en.pdf](http://ec.europa.eu/enterprise/policies/sme/files/support.../entr_highed_en.pdf)] site visited on 12/03/2014.
- Fagerland, M. W. (2012). T-tests, non-parametric tests, and large studies - a paradox of statistical practice? *BMC Medical Research Methodology* 12 (78): 1-7.
- Fatoki, O. and Chindoga, L. (2011). An investigation into the obstacles to youth entrepreneurship in South Africa. *International Business Research* 4 (2): 161-169.
- Fielden, S. L., Davidson, M. J. and Makin, P. J. (2000). Barriers encountered during micro and small business start-up in north-west England. *Journal of Small Business and Enterprise Development* 7 (4): 295 – 304.

- Garalis, G. S. (2008). Identification of college students', entrepreneurship qualities. *Social Research* 4 (14): 132-140.
- Gartner, W. B. (1988). Who is an entrepreneur? Is the wrong question. *Journal of Entrepreneurship Theory and Practice* 13 (4): 47-68.
- Global Entrepreneurship Monitor (2011). The 2011 Global Report: South Africa, the Global Entrepreneurship Research Association (GERA). [<http://www.gemconsortium.org/docs/download/2409>] site visited on 09/02/2014.
- ILO–International Labour Organization (2010). Decent work, country profile Tanzania (mainland). [[http://www.ilo.org/public/english/region/afpro/daressalaam/download/decent\\_work\\_tz.pdf](http://www.ilo.org/public/english/region/afpro/daressalaam/download/decent_work_tz.pdf)] site visited on 04 / 03/2014.
- Institute for Work and Health (2009). What researchers mean by cross-sectional vs. longitudinal studies. [<https://www.iwh.on.ca/wrmb/cross-sectional-vs-longitudinal-studies>] site visited on 12/09/2013.
- Ismail, M. Z. (2009). Developing entrepreneurship curriculum in tertiary education: A study in polytechnics, ministry of higher education, Malaysia. [<http://usasbe.org/knowledge/proceedings/proceedingsDocs/2009/PaperID30.pdf>] site visited on 23/02/13.
- Jack, S. L. and Anderson, A. R. (1999). Entrepreneurship education within the enterprise culture. *International Journal of Entrepreneurial Behaviour & Research* 5(3): 110-125.

Jordan University College (2013). Prospectus for the academic year 2012/2013. [<http://www.morogoro.sds.org/JUCO%20Prospectus%202012-2013.pdf>] site visited on 3/8/2013.

Kadir, A. M. B. Salim, M. and Kamarudin, H. (2013). Factors affecting entrepreneurial intentions among Mara professional college students. [[http://www.mara.gov.my/c/document\\_library/get\\_file?uuid=1876d764-710a-4228-909b-bf12053486b0 &groupId=10157](http://www.mara.gov.my/c/document_library/get_file?uuid=1876d764-710a-4228-909b-bf12053486b0&groupId=10157)] site visited on 11/01/2014.

Katundu, M. A., Mhina, M. L, Mbeiyererwa, A. G. and Kumburu, N. P. (2014). *Socio-Economic Factors Limiting Smallholder Groundnut Production in Tabora Region*. Research Report 14/1, REPOA, Dar es Salaam. 44pp.

Kilasi, P. K. (2011). Role of higher education in promoting entrepreneurship education across disciplines in Tanzania. [<http://www.icsb2011.org/download/18.62efe22412f41132d41800012027/557.pdf>] site visited on 6/12/2011.

Kirby, A. D. (2005). Opening remarks during internationalizing entrepreneurship education and training conference. [[www.som.surrey.ac.uk](http://www.som.surrey.ac.uk)] site visited on 18/07/2011.

Krueger, N. J. and Carsrud, A. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship and Regional Development* 5: 315-330.

Kubegeya, M. (2010). Tanzania: Catching graduates young to run their own business. [<http://allafrica.com/stories/201012280668.html>] site visited on 02/03/2014.

- Lee, S. M, Chang, D. and Lim, S. B. (2005). Impact of entrepreneurship education: a comparative study of the U.S. and Korea. *International Entrepreneurship and Management Journal* 1: 27–43.
- Lekoko, M. and Rankhumise, E. M. (2012). Entrepreneurship education: Survey of two universities in Botswana. *OIDA International Journal of Sustainable Development* 3 (6): 11-18.
- Lourenco, F. and Jones, O. (2006). Developing entrepreneurship education: comparing traditional and alternative teaching approach. *International Journal of Entrepreneurship Education* 4: 111-140.
- Makgosa, R. and Ongori, H. (2012). Perceptions of entrepreneurial behaviour in Botswana. *International Journal of Learning & Development* 2 (3): 247-259.
- Mann, C. J. (2003). Observational research methods. Research design II: Cohort, cross sectional, and case-control studies. *Emergency Medicine Journal* 20: 54-60.
- Maysami, M. R. and Ziemnowicz, C. (2007). Ethnicity, sex and entrepreneurial tendencies: The Singapore perspective. *The Copenhagen Journal of Asian Studies* 1: 74-98.
- Mazzarol, T. (2007). Awakening the entrepreneur: An examination of entrepreneurial orientation among MBA students. [[www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf](http://www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf)] site visited on 13/01/2013.
- McClelland, D.C. (1961). *The Achieving Society*: D. Van Nostrand Co., Princeton. 514pp.

Mcha, M. Ch. (2012). Addressing employment challenges in Tanzania: Strategic policy options and actions by stakeholders. [<http://clknet.or.tz/wp-content/uploads/2012/02/Presentation-Addressing-Employment-Challenges-3.pdf>] site visited on 23/02/2014.

MUCCoBS (2012). Prospectus. [[http://www.muccobs.ac.tz/pdf/MUCCoBS%20PROSPECTUS %202012.pdf](http://www.muccobs.ac.tz/pdf/MUCCoBS%20PROSPECTUS%202012.pdf)] site visited on 23/01/2013.

Mukyanuzi, F. (2003). Where has all the education gone in Tanzania? Employment outcomes among secondary school and university leavers. [<http://www.eldis.org/vfile/upload/1/document/0708/DOC15037.pdf>] site visited on 20/04/2013.

Mwasalwiba, E., Dahles, H. and Wakkee, I. (2012). Graduate entrepreneurship in Tanzania: Contextual enablers and hindrances. *European Journal of Scientific Research* 76 (3): 386-402.

Mzumbe University (2005). Prospectus 2004/2005 [[http://www.mzumbe.ac.tz/ image/mzumbe%20propectus.pdf](http://www.mzumbe.ac.tz/image/mzumbe%20propectus.pdf)] site visited on 12/01/2013.

Nabi, G. and Holden, R. (2008). Graduate entrepreneurship: *Intentions, education and training*. *Education & Training* 50 (7): 545-551.

Naing, L., Winn, T. and Rusli, B. N. (2006). Practical issues in calculating the sample size for prevalence studies. *Archives of Orofacial Sciences* 1: 9-14.

Nieman, G., Hough, J. and Nieuwenhuizen, C. (2003). *Entrepreneurship: A Southern African Perspective*. Van Schaik Publishers, Pretoria. 512pp.

- Nkirina, S. P. (2010). The challenges of integrating entrepreneurship education in the vocational training system: An insight from Tanzania's vocational education training authority. *Journal of European Industrial Training* 34 (2): 53 – 166.
- O'Connell, A. A. (2005). *Logistic Regression Models for Ordinal Response Variables*. Sage Publications, Thousand Oaks. 146 pp.
- Okun, M. A., Benin, M. and Brandt-Williams, A. (1996). Stay in college: Moderators of the relation between intention and institutional departure. *Journal of Higher Education* 67: 577-596.
- Olmsted, J. L. (2008). Longitudinal analysis of student performance in an allied health distance education program. *Journal of Career and Technical Education* 24 (2): 30-41.
- Olomi, D. (2006). Unleashing entrepreneurial potentials of the poor in Tanzania: prospects, challenges and way forward. [[www.undp.org /legalempowerment /.../24\\_6\\_Entrepreneurship.pdf](http://www.undp.org/legalempowerment/.../24_6_Entrepreneurship.pdf)] site visited on 20/8/2011.
- Olomi, D. R. and Sabokwigina, D. (2010). Entrepreneurship education in Tanzanian business schools: a nationwide survey. [[https://www.academia.edu /5333702 /title\\_entrepreneurship\\_education\\_in\\_tanzanian\\_business\\_schools\\_a\\_nationwide\\_survey](https://www.academia.edu/5333702/title_entrepreneurship_education_in_tanzanian_business_schools_a_nationwide_survey)] site visited on 30/04/ 2014.
- Park, R. E. (1928). Human migration and the marginal man. *American Journal of Sociology* 33 (6): 881–893.



Peng, C.J. and So, T.H. (2002). Logistic regression analysis and reporting: A primer. *Understanding Statistics* 1 (1): 31-70.

Prachowny, M. F. J. (2002). *The Goals of Macroeconomic Policy*. Routledge, New York. 232pp.

Pré, R. D. (2009). The place and role of universities of technology in South Africa. [[http://www.satn.co.za/pdf/UoT%20Book%202009%20Final%20Edited%20Version%20A5%2026%20Mar%202009%20\(2\).pdf](http://www.satn.co.za/pdf/UoT%20Book%202009%20Final%20Edited%20Version%20A5%2026%20Mar%202009%20(2).pdf)] site visited on 11/03/2014.

Rweyemamu, A. (2013). Unemployment: Youth hit hard. [[http:// www.ippmedia.com /frontend/? l=50537](http://www.ippmedia.com/frontend/?l=50537)] site visited on 30/06/2014.

Saha, G. (2011). Applying logistic regression model to the examination results data. *Journal of Reliability and Statistical Studies* 4 (2): 105-117.

Sandhu, M. S., Sidique, S. F. and Riaz, S. (2011). Entrepreneurship barriers and entrepreneurial inclination among Malaysian postgraduate students. *International Journal of Entrepreneurial Behaviour & Research* 17 (4): 428 – 449.

Sarjou, A. A.; Soltani, A.; Afsaneh, K. and Mahmoudi, S. (2012). A study of Iranian students' attitude towards science and technology, school science and environment, based on the ROSE project. *Journal of Studies in Education* 2 (1): 90-103.

Schumpeter, J. A. (1954). *Capitalism, Socialism and Democracy*. Harper & Brothers, New York. 437pp.

- Sexton, D. L., Upton, N. B., Wacholtz, L. E. and McDougall, P.P. (1997). Learning needs of growth oriented entrepreneurs. *Journal of Business Venturing* 12: 1-8.
- Shambare, R. (2013). Barriers to student entrepreneurship in South Africa. *Journal of Economics and Behavioural Studies* 7: 449-459.
- Shane, S. (2004). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Edward Elgar Publishing, Cheltenham. 327pp.
- Shane, S. and Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review* 25 (1): 217-226.
- Shapero, A. and Sokol, L. (1982). The social dimensions of entrepreneurship. *The Encyclopaedia of Entrepreneurship* 1: 72-90.
- Smith, K. and Beasley, M. (2011). Graduate entrepreneurs: *Intentions, barriers and solutions*. *Education & Training* 53 (8/9): 722-740.
- Solymossy, E. (1998). Entrepreneurial dimensions: the relationship of individual, venture and environmental factors to success. A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy, Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio, USA, 249pp.
- SUA - Sokoine University of Agriculture (2013). Prospectus 2012-2013. [<http://www.suanet.ac.tz/phocadownload/suaprospectus2012-2013.pdf>] site visited on 18/02/2014.

Tayari, E. D. (2010). Transforming Tanzanian economy by imparting entrepreneurial spirit to its people. [<http://www.vijana.fm/2010/09/24/transforming-tanzanian-economy-by-imparting-entrepreneurial-spirit-to-its-people/>] site visited on 22/07/2014.

TCU -Tanzania Commission for Universities (2009). Statistics, [<http://www.tcu.or.tz/statistics.html>] site visited on 13/05/2011.

Tumaini University Iringa University College (2013). Information to prospective students. [<http://www.tumaini.ac.tz/iu/docs/UAF.pdf>] site visited on 20/7/2013.

UDSM - University of Dar es Salaam (2011). *Prospectus 2011/2012*, UDBS, Dar es Salaam. 198pp.

URT (1999). *The Tanzania Development Vision 2025*. United Republic of Tanzania Presidential Office, Planning Commission, Government Printer, Dar es Salaam. 42pp.

URT (2003). *SME Development Policy 2003*. United Republic of Tanzania, Ministry of Industry and Trade, Government Printer, Dar es Salaam. xxxixpp.

URT (2010). United Republic of Tanzania National Strategy for Growth and Reduction of Poverty II (NSGRP II). Ministry of Finance and Economic Affairs, Dar es Salaam. [[http://www.acdi-cida.gc.ca/inet/images.nsf/vluimages/tanzania/\\$file/national-strategy-for-growthand-reduction-ofpoverty-tanzania.pdf](http://www.acdi-cida.gc.ca/inet/images.nsf/vluimages/tanzania/$file/national-strategy-for-growthand-reduction-ofpoverty-tanzania.pdf)] site visited on 30/06/2014.

- URT–United Republic of Tanzania (2011). The Tanzania National Bureau of Statistics. Unemployment estimates for the year 2011. [[http://www.nbs.go.tz/index.php?option=com\\_content&view=article&id=186:unemployment-estimates-for-the-year-2011&catid=100:employment-and-earnings&Itemid=135](http://www.nbs.go.tz/index.php?option=com_content&view=article&id=186:unemployment-estimates-for-the-year-2011&catid=100:employment-and-earnings&Itemid=135)] site visited on 23/02/2014.
- Van der Berg, A. (2007). Entrepreneurial potential amongst scholars in selected Afrikaans high schools. A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree *Magister* in Business Administration of the University of Johannesburg, Johannesburg, South Africa, 87pp.
- 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.
- Whitlock, W. D. (2004). A phenomenological study of business students' perceptions regarding career choice: Self employment vs. traditional business careers. [<http://www.sbaer.uca.edu/research/ssbia/1995/pdf/04.pdf>] site visited on 20/04/2013.
- Winke, P.; Gass, S. and Sydorenko, T. (2010). The effects of captioning videos used for foreign language listening activities. *Language Learning & Technology* 14 (1): 65–86.
- Wooldridge, J. M. (2001). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Massachusetts: MIT Press Ltd. London. 741pp.

Yaghoubi, J. (2010). Study barriers to entrepreneurship promotion in agriculture higher education. *Procedia Social and Behavioural Sciences* 2: 1901-1905.

Zanzibar University (2011). Prospectus for the year 2010/2011. [<http://www.zanvarsity.ac.tz/files/PROSPECTUS%202010.pdf>] site visited on 11/01/2013.

## **CHAPTER TWO**

### **2.0 ENTREPRENEURIAL TENDENCIES OF TANZANIAN UNIVERSITY GRADUATES: EVIDENCE FROM UNIVERSITY OF DAR ES SALAAM**

Mangasini Atanasi Katundu<sup>1</sup> and Damian Mulokozi Gabagambi<sup>2</sup>

<sup>1</sup>Department of Community and Rural Development, Moshi Co-operative University, P.O.

Box 474, Moshi -Tanzania

(Corresponding author: [mangasini.katundu@mocu.ac.tz](mailto:mangasini.katundu@mocu.ac.tz) )

<sup>2</sup>Department Department of Agricultural Economics and Agribusiness Sokoine University  
of Agriculture, P. O. BOX 3007, Morogoro - Tanzania. Email: [gabagambi@suanet.ac.tz](mailto:gabagambi@suanet.ac.tz)

## 2.1 Abstract

Entrepreneurship plays a key role in socio-economic development of developing countries such as Tanzania where both poverty and unemployment are high. The relationship between unemployment and entrepreneurship is double-faceted. On the one hand, the literature has established that unemployment stimulates entrepreneurial activity, which has been termed as a “refugee effect”. On the other hand, literature has recognized that higher levels of entrepreneurship reduce unemployment; this has been termed as the “Schumpeter effect”. This paper is built within the Schumpeterian effect-theory, which emphasizes that entrepreneurship reduces unemployment. In order for graduates to become entrepreneurs, positive attitude or tendency towards entrepreneurship is required. Persons with higher entrepreneurial tendencies are said to have positive inclination towards entrepreneurship. It is in this viewpoint that the government has accentuated entrepreneurship training within universities countrywide with an aim to facilitate graduates’ entry into business. Despite government initiatives, very few graduates have managed to start their own businesses. This paper establishes whether or not the entrepreneurship training programmes had increased entrepreneurial tendencies of graduates. The General Enterprising Tendencies Test and the independent-samples t-test were applied, and the sample size comprised 308 graduates. The findings indicated that graduates who had studied at least one entrepreneurship course during their undergraduate studies had higher entrepreneurial propensity and had clear aspirations of becoming entrepreneurs in future than those who studied normal degree programmes. This paper recommends that Universities and other higher learning institutions countrywide should make entrepreneurship training compulsory to all students.

**Key words:** *GET test, entrepreneurship education, entrepreneurial tendencies, independent-samples t-test, University graduates, Tanzania.*

## 2.2 Introduction

Researching entrepreneurship has been made exigent by the absence of a universally agreed definition of the term (Gartner, 1988; Gutterman, 2012; Shane *et al.*, 2003). Many researchers have focused on the economic function served by the entrepreneur. For example, one of the earliest definitions of entrepreneurship focused on merchants who were willing to assume the risks of purchasing items at certain prices while there was uncertainty about the prices at which those items could eventually be resold. Later definitions began to focus on the risks and challenges associated with combining various factors of production to generate outputs that would be made available for sale in constantly changing markets. Schumpeter was one of the first scholars to include innovation in the definition of entrepreneurship and believed strongly that the proper role of the entrepreneur was creating and responding to economic discontinuities (Gutterman, 2012).

Entrepreneurship, according to Eroğlu and Piçak (2011) is the practice of starting new organizations or revitalizing mature organizations, particularly new businesses generally in response to identified opportunities. Others involved in the study of entrepreneurship focus on the personality traits and life experiences of the entrepreneur in an attempt to generate lists of common entrepreneurial characteristics propensity for “risk taking”, need for achievement and childhood deprivation. While these studies are interesting, they have generally been far from conclusive and often have generated conflicting results. While talking about entrepreneurship, most of the people mainly focus on various aspects of business but forget about tendency towards entrepreneurial traits or characteristics. Entrepreneurial tendency is one of the most important parts of an entrepreneurship (Bulsara *et al.*, 2010).



This paper argues that entrepreneurial tendency of individuals including University graduates can be improved through exposing them to entrepreneurship education and training.

The aims of entrepreneurship education, among other things, are to change the mindset of people so that they become entrepreneurs in their working places, to solve the problem of job seekers by creating job creators among intellectuals, to discover or exploit opportunities available for the development of individuals and the country at large, and to see the world as an opportunity and not as the worst place to live in (Chiraka, 2012). Several studies have linked lack of entrepreneurship education and training and the problem of graduates' unemployment in Tanzania (Kilasi, 2011; Nkirina, 2010; Olomi, 2006). There is limited evidence to support this view as the number of universities and non-University training institutions offering entrepreneurship and other courses countrywide is increasing while very few graduates opt for self-employment (Nkirina, 2010; SARUA, 2011). Many universities and University colleges in the country today have entrepreneurship development centres and offer either a course or a programme (degree or diploma, etc) on entrepreneurship at an undergraduate and or post-graduate level (UDSM, 2011; Mzumbe, 2005; MUCCoBS, 2012; SUA, 2013; Tumaini University Iringa University College, 2013; Zanzibar University, 2011; Jordan University College, 2013). However, in spite of the increase in number of high learning institutions and proliferation of entrepreneurship courses across institutions, very few graduates opt for entrepreneurship as a career. Little is known about the relationship between the likelihood of a student taking courses in entrepreneurship and their intentions of becoming self-employed after studies.

This paper presents findings from a survey conducted to measure among other things, entrepreneurial tendencies of university graduates. It tries to establish whether or not the entrepreneurship training programmes at the university had increased entrepreneurial tendencies of graduates. The study employed the “General Enterprising Tendencies (GET) Test”. The GET test is a tool that has some potential in assessing entrepreneurial tendencies and therefore entrepreneurial orientation, although it cannot determine whether or not a person is going to be an entrepreneur (Mazzarol, 2007). The following five hypotheses were formed and tested: Ho: There is no significant difference in the level of [(1) need for achievement, (2) need for autonomy and independence, (3) creative tendency, (4) calculated risk-taking propensity, (5) internal locus of control or drive and determination] among the graduates who had studied entrepreneurship and those who had not studied entrepreneurship during their undergraduate studies. The paper is structured in five sections. Section one introduces the paper whereas, section two presents a review of literature on entrepreneurial tendencies. Section three presents the description of the methodology applied in executing this study while section four presents the empirical findings and their discussion. Conclusions and recommendations are provided in section five.

### **2.3 Conceptualizing Entrepreneurial Tendencies**

For quite some time, scholars have been assessing the characteristics of an entrepreneur and from a non entrepreneur in order to explain factors that might trigger new venture creation (Mazzarol, 2007). Personality characteristics and the environmental forces that shape the potential entrepreneurs have been studied in order to predict whether they will or will not engage in entrepreneurial activities (Fini *et al.*, 2009). Key factors that are likely to influence the propensity for entrepreneurship are the need for achievement, the need for autonomy and independence, the creative tendency, the risk taking propensity; and the

drive and determination or internal locus of control (Mazzarol, 2007; Fini *et al.*, 2009; Henderson and Palm, 2011). These entrepreneurial tendencies are likely to be triggered by a tolerance for ambiguity and the individual's previous work or career history (Mair and Marti, 2005). Other characteristics include a person's sex, education level, family background, and ethnicity (Aldrich and Waldinger, 1990; Rwamtoga, 2011).

These drivers of entrepreneurial potential have been studied for some time with several being identified as more important than others. For example, Shane *et al.* (2003) identified the need for achievement, the propensity for taking calculated risks, the tolerance for ambiguity, locus of control, self-efficacy, goal setting, independence, drive and ego passion as being very important. These qualities have been recognized in different groupings as those that characterise the typical entrepreneur (Krasniqi, 2009). Though, a concern is as to whether entrepreneurship is primarily determined by innate personality traits or the environmental context into which individuals find themselves (McCarthy, 1998). It is now clear that entrepreneurial success is not just a function of the individual, but several other factors are responsible for this. Both the characteristics of the individual, the influences of environment as well as the nature of the venture being developed are important to the process of new venture creation and the process that is required to get it going (Mair and Marti, 2005; Krasniqi, 2009).

Shane (2000) argues that entrepreneurship is all about seizing opportunities which others don't know about, or find too difficult and risky to realize. He further argues that, the source of entrepreneurship lies in differences in information about opportunities. Individual differences influence the opportunities that people discover how their entrepreneurial efforts are organized, and how the government can influence this process. Networks may provide resources that are usually not accessible in an open environment,

allowing people to advance as entrepreneurs. Several studies from Europe, Asia, Brazil, Africa and the Middle East on network and entrepreneurship, make this point (Sarada and Tocoian, 2013; Kelley *et al.*, 2011). Furthermore, Aldrich (2005) argues that entrepreneurship is not just about recombining resources and knowledge in new ways, but also about creating new organizations. Why do people fail to create new organizations is then a central puzzle to be solved.

Furthermore, Nodoushani and Nodoushani (1999) noted that a nascent or novice entrepreneur is likely to be influenced by his/her environment which serves to trigger his/her creativity and stimulate his/her desire for achievement leading to the formation of an entrepreneurial venture. Gartner and Shane (1995) further emphasized that external factors might include technology, the economy, and the individual's past career history, particularly in self-employment, the nature of the venture being created and the time taken for the entrepreneurial activity to commence. Moreover, scholars have advised that, in seeking to understand the process of entrepreneurship the role of both individual personality characteristics and the external environment need to be considered (Mazzarol, Volery, Doss and Thien, 1999; Mazzarol, 2007; Henderson and Palm, 2011).

Psychometric tests to study entrepreneurial tendencies are now widely used and accepted (Mazzarol, 2007). Researchers have prepared various tests to assess personality traits and to seek to measure the cognitive style of a person potentially to determine how they might behave, or at least to explain their existing behaviour (Fini *et al.*, 2009). Among the measures of entrepreneurial potential is the General Entrepreneurial Tendencies (GET) test developed by Caird (1991).

The GET test measures five entrepreneurial tendencies, namely: the need for achievement; the need for autonomy; the creative tendency; the calculated risk taking propensity; and the internal locus of control (Caird, 1991; 1992). GET test was developed from a range of existing psychometric tests including McClelland's Thematic Apperception Test (TAT) as a measure of achievement, and Edwards Personal Preference Schedule (EPPS) as a measure of autonomy (Mazzarol, 2007). Other measurements, according to Mazzarol (2007), are Honey and Mumford's Measure of Learning Styles and Jackson's Personality Inventory, which is a measure of risk-taking. The GET test incorporates fundamental elements from the Myers-Briggs Type Indicator (MBTI) which normally measures four dimensions: i) introversion-extroversion; ii) intuition-sensation; iii) thinking-feeling and iv) judging-perception (Shorr, 2012).

The significance of the GET test as a measure of entrepreneurial potential was put forward by Caird (1992) who accredited that, while there was no apparent understanding of what enterprise competency means, there was a need to examine this area in order to provide support and measurement mechanisms for educational courses targeted at enhancing entrepreneurial capacity (Mazzarol, 2007). The GET test employs a series of 54 question items that provide measurement on the five key entrepreneurial attributes. According to Caird (1993) the results of applying psychological tests shows that entrepreneurs have the following characteristics: a high need for achievement, autonomy, change and dominance; an internal locus of control; characteristics of risk taking, energy and social adroitness; a preference for learning through action and experimentation; and a preference for intuition and thinking.

The GET test has been re-studied by other researchers as well. For example, Cromie and O'Donaghue (1992) conducted two studies using the GET test to evaluate the

entrepreneurial tendencies of 194 managers and 661 undergraduate students. They further found that the GET test measure had criterion validity and was able to differentiate significant differences between the entrepreneurial tendencies of different students, suggesting that the instrument had good validity. Further work was recommended on the GET scales to assess their discriminant and predictive validity and general psychometric properties when used with different samples. Kirby (2002) further argues that, although additional work is needed to verify GET test's psychometric properties, some studies have found that the GET has criterion and convergent validity and good internal consistency". According to Cromie (2000), "the GET test is comprehensive, accessible, and easy to administer and score.

Persons with entrepreneurial propensity were viewed as those with high creative tendency, above average need for autonomy and high calculated risk taking orientation. Such people may also have high need for achievement and internal locus of control, but potentially not significantly different from others. Potential entrepreneurs were also more likely to have had a father who was self-employed or to have been self-employed at some stage in the past (Cromie, Callaghan and Jansen, 1992).

This paper focuses on personality traits rather than what entrepreneurs do. This is because first; the literature identifies individual domains (e.g. personality, motivation, and prior experience) and contextual variables (e.g. social context, markets, and economics) as the two dimensions responsible for the formation of entrepreneurial intentions (Fini *et al.*, 2009). As for the first one, Zhao *et al.* (2005) show that psychological characteristics (e.g. risk-taking propensity and entrepreneurial self-efficacy), together with developed skills and abilities, influence entrepreneurial intentions. Other scholars, studying the role of contextual dimensions, show that environmental influences (e.g. industry opportunities

and market heterogeneity; Morris and Lewis, 1995) and environmental support (e.g. infrastructural, political, and financial support; Luthje and Franke, 2003) impact entrepreneurial intentions. Second, according to Fini *et al.*, (2009) studies have also shown that attitudes directly predict entrepreneurial intention, while psychological characteristics, individual skills and environmental influence have only an indirect impact. The environmental support doesn't predict entrepreneurial intention.

## **2.4 Methodology**

In this study, graduates from the University of Dar es Salaam were interviewed. It is an established fact that University graduates in Tanzania have the tendency of living in towns and cities. University of Dar es Salaam graduates are not an exception to this; most of them are found in cities and towns, especially Dar es Salaam, Mwanza, Arusha, Moshi, Dodoma, Mbeya and Morogoro.

A cross-sectional design was employed, and individual graduates were used as a sampling unit. The sampled population involved graduates of the University of Dar es Salaam from 2000/2001 to 2010/2011. Graduates were grouped into two clusters, those who had studied entrepreneurship (graduates of the University of Dar es Salaam Business School-UDBS) and those who had not studied entrepreneurship (graduates of the College of Arts and Social Sciences-CASS). The sample size was 308 graduates; the choice of this figure was based on the confidence level, the margin of error and the skewness level required. A sample size is normally determined by three things, that is, the confidence level, the margin of error and the skewness level (Dodhia, 2007; Naing *et al.*, 2006). The sample size of 308 was considered adequate at 95% confidence level, 5.5% margin of error and 50% skewness level.

Out of 308 graduates, 119 were selected from UDBS out of 2436 and others 189 from CASS out of 6889 graduates. Systematic random sampling (SRS) was used to get the required sample size. First, a list of graduates between 2000/2001 and 2010/2011 was obtained from the UDBS and CASS. Second, the first name from each list was picked randomly and the remaining 306 were picked systematically. Only, graduates who were living within the country and who were easily accessible were involved in the study. The systematic random sampling was repeated in order to replace the sampled graduates who were not alive or were not living in the country at the time of this study. Fortunately, none of them was deceased, but seven of them (two from CASS and five from UDBS) were not living in the country. Therefore, the systematic random sampling was repeated only once to replace the seven missed respondents.

In addition, copies of the questionnaire were sent using courier delivery services to several respondents who were living very far from Morogoro and could not be easily accessed. Telephone and e-mail were used to remind respondents to return the questionnaire on time.

A semi-structured questionnaire which included the General Enterprising Tendencies (GET) Test was used in collecting data. The questionnaire consisted of three sections, namely section A, B and C. Section A had 16 questions and was set to explore the background information of a respondent on issues related to sex, age, graduation year, marital status, ethnic origin, parents' information and more others. Section B was structured in order to assess barriers to self-employment among university graduates and it consisted of 14 questions while section C comprised the General Enterprising Tendency (GET) test questions. In its original form the GET test consists of a set of 54 questions which together measure enterprising tendency through the assessment of five enterprising



characteristics, namely calculated risk taking, creative tendency, high need for achievement, high need for autonomy and internal locus of control or drive and determination (Caird, 1991; Garalis, 2008).

This study used the GET test as it was in its original form but slightly modified the language and examples in it to fit the Tanzanian context. Respondents were then required to indicate the extent to which they agreed or disagreed with each of the questions by ticking in the appropriate box. Individual's scores from each trait were then summed up to get the entrepreneurial tendency as follows: the need for achievement, those who scored 9-12 points had high while respondents who scored below 9 had low need for achievement. Likewise, concerning the need for autonomy and independence; respondents who scored between 4-6 points were regarded to have high need for autonomy and independence as compared to those who scored below 4 who had low need for autonomy and independence. On the creative tendency, graduates with 8-12 scores had high and those who scored below 8 had low entrepreneurial tendency. With regard to the calculated risk taking propensity, graduates whose scores ranged from 8-12 had high whereas those whose scores were below 8 points were considered to have low risk taking propensity. Similarly, graduates who scored 8-12 on the drive and determination trait were judged to have high and those with scores below 8 points had low drive and determination.

The gathered data were analysed using the Statistical Package for Social Sciences (SPSS) and the Microsoft Excel (MS Excel) computer packages. Descriptive statistics were applied in analysing data which were collected using the General Enterprising Tendency (GET) Test. Graduates entrepreneurial tendencies were then compared between those who had studied entrepreneurship and those who had not studied entrepreneurship using the independent-samples t-test.

The independent-samples t-test was preferred for this study because it is statistically more robust in comparing means between two independent samples than the Man-Whitney U-test. The independent-samples t-test (or independent t-test, for short) compares the means between two unrelated groups on the same continuous, dependent variable.

According to Fagerland (2012), for the independent-samples t-test to be applied, a number of assumptions need to be met. The most important ones are: One, the dependent variable should be measured on a continuous scale, that is, interval or ratio level; two, independent variables should consist of two categorical, independent groups. Other key assumptions include independence of observations, which means that there is no relationship between the observations in each group or between the groups themselves. A fourth assumption entails that; there should be no significant outliers. Outliers are simply single data points within data sets that do not follow the usual pattern. Perhaps the most fundamental assumption is the fifth one which requires that the dependent variable should be approximately normally distributed for each group of the independent variable. The last assumption necessitates homogeneity of variances. Examples of studies which applied independent-samples t-test to compare means are Sarjou *et al.* (2012); Winke *et al.* (2010); Maysami and Ziemnowicz (2007) and Olmsted (2008).

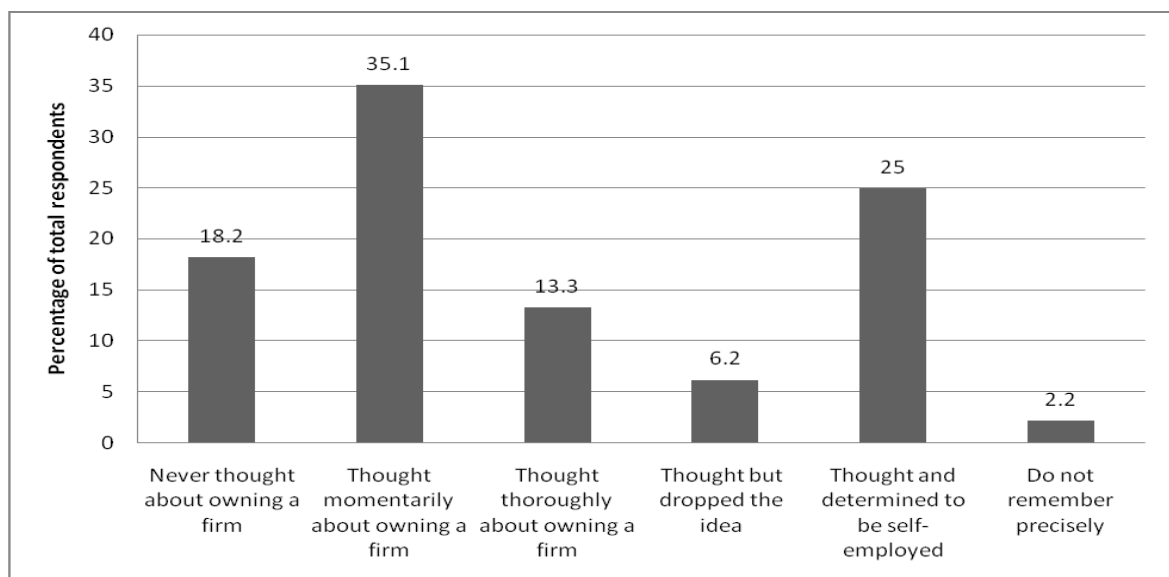
## **2.5 Findings and Discussion**

This section presents the study findings. The section is organized into three main parts; the first part assesses graduates' entrepreneurial intention; the second one analyses graduates' entrepreneurial intention by cohort and the last one presents an assessment of graduates' entrepreneurial tendencies. It is important to note that 27% of the interviewed graduates were females whereas 73% were males. The mere fact that this study managed to get only 27% female respondents further shows that truly women are still lowly represented in the Tanzanian higher education.

## 2.5.1 Findings

### 2.5.1.1 Graduates' entrepreneurial intention

Respondents were asked as to whether they had ever seriously thought about setting up and owning a firm. The greatest proportion (35.1%) reported to have thought momentarily about establishing a firm 25% of them thought about it and were determined to become self-employed in the future. Others (13.3%) thought quite thoroughly, while 6.2% had thought about it but dropped the idea. A considerable proportion 18.2% had never thought about establishing their own businesses despite the difficulties in getting formal employment. Fig. 2.1 presents results on entrepreneurial intention of graduates.

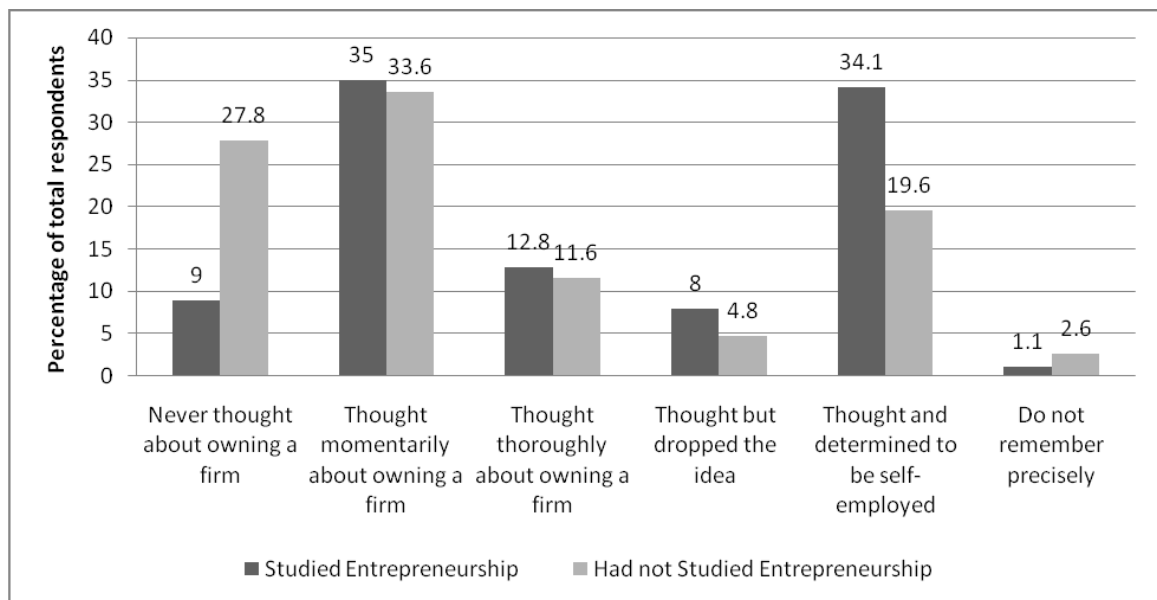


**Figure 2.1: Graduates' entrepreneurial intention**

### 2.5.1.2 Graduates' entrepreneurial intention by cohort

A comparative analysis of entrepreneurial intention between graduates who had studied entrepreneurship and those who had not studied entrepreneurship was carried out. The number of graduates who had never thought about setting up their own firms varied drastically between the associates. Among those who had not studied entrepreneurship 27.8% reported to have never thought about setting up and owning firms as compared to only 9% of their opposite group.

The results further indicated that, 34.1% of graduates who had studied entrepreneurship thought about establishing and managing their own firms as they were determined to become self-employed in the future; whereas, only 19.6% of their counter parts were determined to be entrepreneurs. Equally, 35 % of respondents who had studied entrepreneurship courses had thought momentarily about establishing firms as compared to 33.6% of those who had not studied entrepreneurship. Fig.2.2 presents the details.



**Figure 2.2: Graduates' entrepreneurial intention by cohort**

### 2.5.1.3 Entrepreneurial tendency of Tanzanian university graduates

The GET test was used to measure entrepreneurial tendency of graduates in terms of calculated risk taking, creative tendency, high need for achievement, high need for autonomy and internal locus of control or drive and determination. The findings indicated that 34.1% of graduates interviewed had high need for achievement as compared to 65.9% who scored low on the same trait. The results further showed that only 19.8% of the graduates under study had high need for autonomy and independence as compared to 80.2% who had low scores on the trait. In terms of creative tendency, 28.6% of the respondents had high creative tendency while 71.4% had low creative tendency.

According to the results, 38.3% of graduates involved in this study had high risk-taking propensity and 61.7% had low risk taking propensity. It can further be noted that 55.2% of the graduates involved in the survey had high drive and determination while 44.8% had low drive and determination as shown in Table 2.1.

**Table 2.1: Entrepreneurial tendencies of university graduates (n = 308)**

Attitude	Entrepreneurial tendencies			
	Frequency	High Percent (%)	Frequency	Low Percent (%)
Need for achievement 9 -12= High; < 9 = Low	105	34.1	203	65.9
Need for autonomy and independence 4 - 6 = High; < 4 = Low	61	19.8	247	80.2
Creative tendency 8 -12 = High; < 8 Low	88	28.6	220	71.4
Moderate/calculated risk- taking 8 -12 = High; < 8 Low	118	38.3	190	61.7
Drive and determination 8 -12 = High; < 8 Low	170	55.2	138	44.8

#### **2.5.1.4 Entrepreneurship education and graduates' need for achievement**

The mean score on the graduates need for achievement was compared between those who had studied entrepreneurship and those who had not studied entrepreneurship during their undergraduate studies using the independent t-test.

It was found that there was a statistically significant difference ( $p < 0.05$ ) in terms of need for achievement between graduates who had studied entrepreneurship courses and their counterparts (Table 2). For this reason, the differences between condition means seen in Table 2.2 were not likely due to chance but due to the independent variable manipulation and therefore the null hypothesis is rejected. That is to say, entrepreneurship education had increased graduates' need for achievement.

**Table 2.2: Results of the independent samples t- test (group statistics)**

Trait	Degree Programme Studied	n	Mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
Need for achievement	Didn't include entrepreneurship course	189	8.4603	1.9933	0.1450	0.000
	Included entrepreneurship course	118	9.6356	1.9022	0.1751	
Need for autonomy and Independence	Didn't include entrepreneurship course	189	2.9788	1.7684	0.1286	0.000
	Included entrepreneurship course	118	9.8136	2.0835	0.1918	
Creative tendency	Didn't include entrepreneurship course	189	6.3915	1.9475	0.1417	0.000
	Included entrepreneurship course	118	10.5339	1.1816	0.1088	
Calculated risk taking	Didn't include entrepreneurship course	189	6.6402	1.9427	0.1413	0.000
	Included entrepreneurship course	118	10.0932	1.8021	0.1659	
Drives and determination	Didn't include entrepreneurship course	189	7.5079	2.1053	0.1531	0.000
	Included entrepreneurship course	118	10.6525	0.8410	0.0774	

#### 2.5.1.5 Entrepreneurship education and need for autonomy

Concerning whether the mean score on the need for autonomy and independence differ significantly between graduates who had studied entrepreneurship and those who had studied just normal courses, this study found that their mean score on the need for autonomy and independence trait differed significantly. Since the results in Table 2.2 and Table 2.3 show that the  $p < 0.05$ , this signifies that the differences between condition means as presented in Table 2 were not likely due to chances but due to the independent variable manipulation. Graduates who had studied entrepreneurship had three times higher need for autonomy and independence (mean = 9.8136) than those who had not studied entrepreneurship courses (mean = 2.9788). Hence, the null hypothesis is rejected.

**Table 2.3: Results of the independent samples t- test**

		<b>F</b>	<b>T</b>	<b>df</b>	<b>Sig.</b>	<b>Mean Differ.</b>	<b>Std. Error Differ.</b>	<b>95% Confidence Interval of the Difference</b>	
								<b>Lower</b>	<b>Upper</b>
Need for achievement	Equal variances assumed	0.138	-5.114	305	0.000	-1.1753	0.2298	-1.6275	-.7230
	Equal variances not assumed		-5.170	257	0.000	-1.1753	0.2273	-1.6230	-.7276
Need for autonomy and Independence	Equal variances assumed	7.796	-30.733	305	0.000	-6.8347	0.2224	-7.2723	-6.3971
	Equal variances not assumed		-29.595	218	0.000	-6.8347	0.2309	-7.2899	-6.3796
Creative tendency	Equal variances assumed	47.669	-20.828	305	0.000	-4.1424	0.1989	-4.5337	-3.7510
	Equal variances not assumed		-23.193	304	0.000	-4.1424	0.1786	-4.4938	-3.7909
Calculated risk taking propensity	Equal variances assumed	6.777	-15.572	305	0.000	-3.4530	0.2218	-3.8894	-3.0167
	Equal variances not assumed		-15.845	262	0.000	-3.4530	0.2180	-3.8821	-3.0239
Drives and determination	Equal variances assumed	89.283	-15.466	305	0.000	-3.1446	0.2033	-3.5447	-2.7445
	Equal variances not assumed		-18.326	268	0.000	-3.1446	0.1716	-3.4825	-2.8068

### 2.5.1.6 Entrepreneurship education and graduates' creative tendency

The mean score on creative tendency was also compared between respondents whose undergraduate degree programmes included an entrepreneurship course and respondents who studied only normal courses. The p-value in Table 2.3 is less than 0.05 indicating that there was a statistically significant difference between the mean score on creative tendency between respondents whose undergraduate degree programmes had included an entrepreneurship course and respondents who studied normal courses. Since the Group Statistics (Table 2.2) revealed that the mean for the graduates whose degree programme had included an entrepreneurship course was twice as much greater than the mean for those whose degree programme had not included an entrepreneurship course, it is argued that participants in the degree programme which had included an entrepreneurship course, had significantly higher creative tendency than those in the degree programmes which had not included an entrepreneurship course, and hence the null hypothesis is rejected.

### **2.5.1.7 Entrepreneurship education and graduates' calculated risk taking**

An independent-samples t-test was also conducted to compare the calculated risk taking propensity for graduates whose undergraduate degree programme included entrepreneurship course and graduates whose degree programme did not include any entrepreneurship course. There was a significant difference in the scores for the degree programme which included entrepreneurship course ( $M = 10.0932$ ,  $SD = 1.8021$ ) and degree programme which did not include an entrepreneurship course ( $M = 6.6402$ ,  $SD = 1.9427$ ) as shown in Table 2;  $t(262.403) = -15.845$ ,  $p < 0.05$  (Table 2.2 and Table 2.3). These results suggest that entrepreneurship education really does have an effect on the calculated risk taking propensity for graduates. Specifically, the results suggest that when at least one entrepreneurship course is added into a degree curriculum of University students, their calculated risk taking propensity to engage in entrepreneurial activities increases. Consequently, the null hypothesis here is rejected.

### **2.5.1.8 Entrepreneurship education and graduates' internal locus of control**

Contrary to what was predicted, results from an independent samples t-test indicated that graduates whose undergraduate degree programme included at least one course on entrepreneurship ( $M = 10.6525$ ,  $SD = 0.8410$ ,  $N = 118$ ) scored much higher on the internal locus of control or drives and determination than University graduates whose undergraduate studies did not include entrepreneurship course ( $M = 7.5079$ ,  $SD = 2.1053$ ,  $N = 189$ ),  $t(-18.326) = 268.232$ ,  $p < 0.05$ , two-tailed as shown in Table 2.3. This implies that entrepreneurship education had significant effect on the drives and determination tendency of graduates.



## 2.6 Discussion

For a long time, personality characteristics have been described as being relatively stable predictors of entrepreneurial behaviour (see Raab; Stedham and Neuner, 2005). Comprehensive researches by King's (1985) and Müller's (2002) as cited by Raab *et al.* (2005) confirmed that the need for achievement, locus of control, propensity to take risks, problem solving, willingness to assert oneself (willingness to follow through), tolerance of ambiguity, and emotional stability are among the strongest personal traits that influence individuals' entrepreneurial inclination. According to Douglas and Fitzsimmons (2005), an individual's intention to behave entrepreneurially will have attitudinal and self-efficacy antecedents. Douglas and Fitzsimmons (2005) further emphasize that self-efficacy is also expected to moderate the effect of attitudes on intentions, since entrepreneurship, as typified by new venture creation, involves considerable risk, greater personal decision and responsibility.

The findings on entrepreneurial intention imply that graduates who had studied at least one course on entrepreneurship during their undergraduate studies had at one point in time thought of establishing their own firms in contrast to those who had not studied entrepreneurship courses. This is because those who had an opportunity to study entrepreneurship during the undergraduate studies had clear aspirations of becoming entrepreneurs in future.

Graduates who had studied entrepreneurship had higher entrepreneurial tendencies than those who had not studied entrepreneurship. For example, graduates who had studied entrepreneurship had three times higher need for autonomy and independence and two times creative propensity than those who had not studied entrepreneurship courses.

It can be recapitulated that when University students are exposed to entrepreneurship education, their general attitude towards entrepreneurship as a career and their intention of becoming entrepreneurs after studies improves significantly. This is good news and a better starting point for any government such as that of Tanzania whose primary objective is to solve the unemployment problem. The debate now should not be on whether or not entrepreneurs are born or taught. This study has proved that potential entrepreneurs can indeed be trained to become entrepreneurs and supports the argument that entrepreneurs are taught. What may be debated at the moment is on what training the potential entrepreneurs really requires, which will help them effectively venture into business environment. The paper argues that the type, modalities and contents of the training curricula may vary depending on individual's experience as well as the environmental and socio-cultural antecedents.

It is important to note that, while there may be many graduates who intend to become entrepreneurs, there are few who actually end up being entrepreneurs (see Siyanbola *et al.*, 2009; Timmons, 1994; Brenner *et al.*, 1991; Rosa and McAlpine, 1991). Many factors can explain this; one of them is poor supportive environments for entry into entrepreneurship (Halis, 2013; Sarada and Tocoian, 2013; Mohd *et al.*, 2012). Okhominia (2010) argues that the need for achievement, internal locus of control, and tolerance for ambiguity are useful predictors of entrepreneurial orientation, but there should be an environment conducive to moderate the relationships between entrepreneurial orientation and the psychological traits. According to Geri (2013), individuals depend on environmental factors in making decisions (including entry), but the most vital factor for success of any entrepreneur is the tendency to take risk.

Worth noting is the historical antecedent of Tanzania as a socialist country which may have also impacted negatively on the desire of most Tanzanians including the university

graduates to become entrepreneurs. In 1967, the post-colonial government adopted a radical transformation to development, through the Arusha Declaration and “*Ujamaa policy*” (socialist policy). All the major means of production in the country such as industries, plantations, commerce and mines were nationalized and put under the direct state control. The state became the major owner, controller and manager of the state owned enterprises (Ngowi, 2009). The Ujamaa policy did not give any incentive to private sector enterprises. Private sector entrepreneurs were looked upon as exploiters and “*enemies of the state*” (Olomi, 2009). During this period, Tanzanians were indoctrinated to hate virtually everything capitalistic including entrepreneurship. An entrepreneur was regarded as an evil and associated with a beast.

The slogan “*Ubepari ni Unyama*” (capitalism is barbaric) was heard on the radio and in news bulletin. Thus, entrepreneurship was made attractive only for morally deviant individuals (Chiraka, 2012). Olomi (2009) reports that, during Ujamaa policy, regulations were introduced to bar civil servants and leaders of the ruling party from engaging in business activities. Since all educated Africans were civil servants, this meant that business activities were left to Asians and those indigenous people who had no job opportunities, and these tended to be people who had no substantial education. Given the acknowledged roles of the private as opposed to the public sector in economic development process, this epoch can be said to have been “*a lost period*” in Tanzania’s economic development process (Ngowi, 2009).

## **2.7 Conclusions and Recommendations**

This study has found that entrepreneurship education had increased the University graduates’ entrepreneurial tendencies in terms of the need for achievement, the need for autonomy and independence, the creative tendency propensity, the calculated risk taking attribute and the internal locus of control. Graduates who had studied at least one

entrepreneurship course in their undergraduate degree programmes had twice as much higher entrepreneurial propensity than those who had not studied entrepreneurship. In addition, this study has found that graduates who had an opportunity to study at least one entrepreneurship course during their undergraduate studies had clear aspirations of becoming entrepreneurs in future. This paper argues that the failure of most university graduates in Tanzania to engage in new venture creation can be partly attributed to poor business environment and the historical antecedent of the country as a socialist state. In view of the above conclusions this paper recommends the following:

- (i) Since entrepreneurship education increases the entrepreneurial tendencies, universities and other higher learning institutions countrywide should make entrepreneurship training compulsory to all students. Entrepreneurship courses will facilitate the process of promoting entrepreneurial interests among students (future graduates) by imparting the skills and confidence they need to start their own businesses. Universities countrywide are urged to embark on a long term mission to expose students (future graduates) to self-determination and practical exploration in entrepreneurship at an early stage and evaluate their progress while still studying.
- (ii) Universities in Tanzania should adopt a “Student Centered Learning Model” (SCLM) which is commonly known as the “Entrepreneurial Directed Approach” (EDA). EDA will enable students (prospective graduates) to have a positive entrepreneurial mindset. The techniques associated with EDA are: running a real business, visit to business location and interview with entrepreneurs. These teaching techniques are considered as the most important in improving students’ entrepreneurial awareness and skills (Pihie and Sani, 2009). EDA will also

improve students' enterprising behaviour through prior exposure to other "hands on" entrepreneurship teaching techniques such as developing business plan, case analysis, class presentation and discussion. Entrepreneurship education in universities should consider teaching techniques that require students' to have "hands on" enterprise experience as well as to practice entrepreneurial directed approach in improving university students' entrepreneurial mindset.

## 2.8 References

- Aldrich, H. and Waldinger, R. (1990). Ethnicity and entrepreneurship. *Annual Review of Sociology* 16 (1): 111-135.
- Aldrich, H. E. (2005). Entrepreneurship. *Handbook of Economic Sociology* 1: 451–477.
- Brenner, O. C., Pringle, C. D. and Greenhaus, J. H. (1991). Perceived fulfilment of organizational employment versus entrepreneurship: Work values and career intentions of business college graduates. *Journal of Small Business Management* 29 (3): 62-74.
- Bulsara, H. D., Gandhi, S. and Porey, P. D. (2010). A comparative study of enterprising tendency with the help of selected case in India. *International Journal of Trade, Economics and Finance* 1 (4): 392-399.
- Caird, S. (1991). Testing enterprising tendency in occupational groups. *British Journal of Management* 2 (4): 177-187.
- Caird, S. (1992). Problems with the identification of enterprise competencies and the implications for assessment and development. *Management Education and Development* 23 (1): 6-17.
- Caird, S. (1993). What do psychological tests suggest about entrepreneurs? *Journal of Managerial Psychology* 8 (6): 11-20.

- Chiraka, M. (2012). Entrepreneurship education: The road to sustainable development in Tanzania, HAKIELIMU. [hakielimu.org/publication\_ download. php? En =234] site visited on 12/02/2014.
- Cromie, S. (2000). Assessing entrepreneurial implications: Some approaches and empirical evidence. *European Journal of Work and Organizational Psychology* 9 (1): 7-30.
- Cromie, S., and O'Donaghue, J. (1992). Research note: Assessing entrepreneurial inclinations. *International Small Business Journal* 10 (2): 66-74.
- Cromie, S., Callaghan, I. and Jansen, M. (1992). The entrepreneurial tendencies of managers: A research note. *British Journal of Management* 3 (1): 1-5.
- Dodhia, R. M. (2007). Sample size calculations. [http:// www. ravenanalytics.com/Articles/Sample\_Size\_Calculations.htm] site visited on 20/7/2012.
- Douglas, E. J., and Fitzsimmons, J. R. (2005). Entrepreneurial intentions towards individual vs. corporate entrepreneurship. [eprints.qut.edu.au/6488/1/ 6488.pdf] site visited on 20/02/2014.
- Eroğlu, O. and Piçak, M. (2011). Entrepreneurship, national culture and Turkey. *International Journal of Business and Social Science* 2 (16): 146-151.

- Fagerland, M. W. (2012). T-tests, non-parametric tests, and large studies - a paradox of statistical practice? *BMC Medical Research Methodology* 12 (78): 1-7.
- Fini, R., Grimaldi, R., Marzocchi, G. L. and Sobrero, M. (2009). The foundation of entrepreneurial intention. [<http://www2.druid.dk/conferences/viewpaper.php?id=5955&cf=32>] site visited on 27/02/2014.
- Garalis, G. S. (2008). Identification of college students' entrepreneurship qualities. *Social Research* 4 (14): 132-140.
- Gartner, W. B. (1988). Who is an entrepreneur? Is the wrong question. *American Journal of Small Business* 1: 11-32.
- Gartner, W. B. and Shane, S.A. (1995). Measuring entrepreneurship over time. *Journal of Business Venturing* 10 (4): 283-301.
- Geri, S. (2013). Relationship between entrepreneurial skills and tendencies: A research on physical education students. *International Journal of Business and Social Science* 4 (5): 179-185
- Gutterman, A. S. (2012). Definitions of entrepreneurship. [[http://alangutterman.typepad.com/files/mec\\_02.06.2012.pdf](http://alangutterman.typepad.com/files/mec_02.06.2012.pdf)] site visited on 12/02/2014.
- Halis, M. (2013). Kırgızistanda üniversite adaylarının kariyer güdöleri ve değörleri ilişkisi: bir araştırma. *dumlupınar üniversitesi sosyal bilimler dergisi*. (Kyrgyzstan candidates' university career and motivation values of relationship: a survey). *Dumlupınar University Journal of Social Sciences* 36: 203-217.



Henderson, G. and Palm, M. (2011). Business education and enterprising tendencies - a study of education as a factor in enterprising. [[http://www.diva-portal.org/smash/get/diva2:560424/FULL TEXT 01.pdf](http://www.diva-portal.org/smash/get/diva2:560424/FULL_TEXT_01.pdf)] site visited on 25/02/2014.

Jordan University College (2013). Prospectus for the academic year 2012/2013. [<http://www.morogoro.sds.org/JUCO%20Prospectus%202012-2013.pdf>] site visited on 3/8/2013.

Kelley, D. J., Brush, C. G., Greene, P. G. and Litovsky, Y. (2011). Global entrepreneurship monitor. 2010 report: Women entrepreneurs worldwide [<http://www.gemconsortium.org/docs/download/768>] site visited on 26/02/2014.

Kilasi, P. K. (2011). Role of high education in promoting entrepreneurship education across disciplines in Tanzania. [[http://www.icsb2011.org/download/ 18.62efe22412f41132d4180001202/557.pdf](http://www.icsb2011.org/download/18.62efe22412f41132d4180001202/557.pdf)] site visited on 6/12/2011.

Kirby, D. A. (2002). Entrepreneurship education: Can business schools meet the challenge? [[http://labsel.pesarosviluppo.it/docindexer/Uploads%5C178-Entrepreneurship%20education\\_Can%20business%20meet%20the%20challenge.pdf](http://labsel.pesarosviluppo.it/docindexer/Uploads%5C178-Entrepreneurship%20education_Can%20business%20meet%20the%20challenge.pdf)] site visited on 26/02/2014.

Krasniqi, B. A. (2009). Personal, household and business environmental determinants of entrepreneurship. *Journal of Small Business and Enterprise Development* 16 (1): 146-166.

- Luthje, C., and Franke, N. (2003). The 'making' of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management* 33 (2): 135–148.
- Mair, J. and Marti, I. (2005). Social entrepreneurship research: A source of explanation, prediction, and delight [[www.iese.edu/research/pdfs/di-0546-e.pdf](http://www.iese.edu/research/pdfs/di-0546-e.pdf)] site visited on 20/02/2014.
- Maysami, M. R. and Ziemnowicz, C. (2007). Ethnicity, sex and entrepreneurial tendencies: The Singapore perspective. *The Copenhagen Journal of Asian Studies* 1: 74-98.
- Mazzarol, T. (2007). Awakening the entrepreneur: An examination of entrepreneurial orientation among MBA students. [[www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf](http://www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf)] site visited on 10/2/2014.
- Mazzarol, T., Volery, T., Doss, D. and Thein, V. (1999). Factors influencing small business start-ups: A comparison with previous research. *International Journal of Entrepreneurial Behaviour and Research* 5 (2): 48-63.
- McCarthy, B. L., B. (1998). The entrepreneur, risk-perception and change over time: a typology approach. *IBAR – Irish Business and Administrative Research* 19/20 (1): 126-131.
- Mohd, R., Yahya, K. K. and Kamaruddin, B. H. (2012). The moderating effect of environment on the relationship between self-efficacy and entrepreneurial orientation among Malay SMEs in manufacturing industry. [[https://www.academia.edu/5549885/BER\\_Vol.3\\_No.2\\_December\\_2013\\_published](https://www.academia.edu/5549885/BER_Vol.3_No.2_December_2013_published)] site visited on 10/2/2014.

- Morris, M., and Lewis, P. (1995). The determinants of entrepreneurial activity. *European Journal of Marketing* 29 (7): 31–48.
- MUCCoBS (2012). Prospectus [<http://www.muccobs.ac.tz/pdf/muccobs%20prospectus%202012.pdf>] site visited on 23/01/2013.
- Mzumbe University (2005). Prospectus 2004/2005 [<http://www.mzumbe.ac.tz/image/mzumbe%20prospectus.pdf>] site visited on 12/01/2013.
- Naing, L., Winn, T. and Rusli, B. N. (2006). Practical issues in calculating the sample size for prevalence studies. *Archives of Orofacial Sciences* 1: 9-14.
- Ngowi, H. P. (2009). Economic development and change in Tanzania since independence: The political leadership factor. *African Journal of Political Science and International Relations* 3 (4): 259-267.
- Nkirina, S. P. (2010). The challenges of integrating entrepreneurship education in the vocational training system: an insight from Tanzania's vocational education training authority. *Journal of European Industrial Training* 34 (2): 53 – 166.
- Nodoushani, O., and Nodoushani, P.A. (1999). A deconstructionist theory of entrepreneurship: A note. *American Business Review* 17 (1): 45-49.
- Okhomina, D. (2010). Entrepreneurial orientation and psychological traits: The moderating influence of supportive environment. *Journal of Behavioural Studies in Business* 3: 1-16.

- Olmsted, J. L. (2008). Longitudinal analysis of student performance in an allied health distance education program. *Journal of Career and Technical Education* 24 (2): 30-41.
- Olomi, R. D. (2006). Unleashing entrepreneurial potentials of the poor in Tanzania: prospects, challenges and way forward. [[www.undp.org/legalempowerment/.../ 24\\_6\\_Entrepreneurship.pdf](http://www.undp.org/legalempowerment/.../24_6_Entrepreneurship.pdf)] site visited on 20/8/2011.
- Olomi, R. D. (2009). *African Entrepreneurship and Small Business Development, Context and Process*. Otme Company Limited, Dar es Salaam. 176pp.
- Pihie and Sani (2009). Exploring the entrepreneurial mindset of students: implication for improvement of entrepreneurial learning at university. *Journal of International Social Research* 2 (8): 340-345.
- Raab, G., Stedham, Y. and Neuner, M. (2005). Entrepreneurial potential: an exploratory study of business students in the U.S. and Germany. *Journal of Business and Management* 11 (2) 71-88.
- Rosa, P. and McAlpine, A. (1991). A career orientation towards enterprise. *Recent Research in Entrepreneurship* 1: 73-105.
- Rwamtoga, B. (2011). Effects of Entrepreneurship Education on Entrepreneurship Development: A Case of Vocational Education and Training Authority Dar es Salaam Centre. [<http://repository.out.ac.tz/275/>] site visited on 27/02/2014.

- Sarada. X. and Tocoian, O. (2013). The success of entrepreneurial networks: evidence from Brazil. [[http://people.duke.edu/~sx19/networks\\_sarada\\_tocoian.pdf](http://people.duke.edu/~sx19/networks_sarada_tocoian.pdf)] site visited on 11/10/2014.
- Sarjou, A. A.; Soltani, A.; Afsaneh, K. and Mahmoudi, S. (2012). A study of Iranian students' attitude towards science and technology, school of science and environment, based on the ROSE project. *Journal of Studies in Education* 2 (1): 90-103.
- SARUA (2011). Tanzania national education system overview, [<http://www.sarua.org/?q=Tanzania>] site visited on 14/11/2011.
- Shane, S. A. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science* 11 (4): 448-469.
- Shane, S. A. (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Edward Elgar Publishing, Cheltenham. 327pp.
- Shane, S. A., Locke, E. and Collins, C. (2003). Entrepreneurial motivation. *Human Resource Management Review* 13 (2): 257-279.
- Shorr, K. (2012). Using the Myers-Briggs Type Indicator to improve teamwork. [<http://www.b2binsights.com/using-the-myers-briggs-type-indicator-to-improve-teamwork/#!prettyPhoto>] site visited on 27/02/2014.

Siyanbola, W. O., Afolabi, O. O., Jesuleye, O. A., Egbetokun, A. A., Dada, A. D., Aderemi, H. O., Sanni, M. and Razak, M. (2009). Determinants of entrepreneurial propensity of Nigerian undergraduates: An empirical assessment. [<http://mpira.ub.uni-muenchen.de/35797/>] site visited on 11/10/2013.

Timmons, J. A. (1994). *New Venture Creation – Entrepreneurship for the 21<sup>st</sup> Century*. Irwin/McGraw-Hill, Boston: 612pp.

Tumaini University Iringa University College (2013). Information to prospective students. [<http://www.tumaini.ac.tz/iu/docs/UAF.pdf>] site visited on 20/7/2013.

Winke, P.; Gass, S. and Sydorenko, T. (2010). The effects of captioning videos used for foreign language listening activities. *Language Learning & Technology*, Volume 14 (1): 65–86.

Zhao, H., Seibert, S. and Hills, G. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology* 90 (6): 1265–1272.

## **CHAPTER THREE**

### **3.0 DETERMINANTS OF ENTREPRENEURIAL TENDENCIES AMONG TANZANIAN UNIVERSITY GRADUATES: A CASE OF UNIVERSITY OF DAR ES SALAAM**

Mangasini Atanasi Katundu<sup>1</sup> and Damian Mulokozi Gabagambi<sup>2</sup>

<sup>1</sup>Department of Community and Rural Development, Moshi Co-operative University, P.O.

Box 474, Moshi -Tanzania

(Corresponding author: [mangasini.katundu@mocu.ac.tz](mailto:mangasini.katundu@mocu.ac.tz) )

<sup>2</sup>Department Department of Agricultural Economics and Agribusiness Sokoine University  
of Agriculture, P. O. BOX 3007, Morogoro - Tanzania. Email: [gabagambi@suanet.ac.tz](mailto:gabagambi@suanet.ac.tz)

### 3.1 ABSTRACT

Entrepreneurship is an essential contributor to innovation and job-creation; it also plays a key role in economic growth. Cognizant of its importance, most governments in the world are encouraging graduates to consider entrepreneurship as an alternative career. Graduates should have reasonably higher entrepreneurial tendencies if they are to benefit from various government initiatives towards entrepreneurship. Prior research has not addressed fully entrepreneurial tendencies of graduates, especially in developing economies like Tanzania where poverty and graduate unemployment are high. This paper presents factors influencing Tanzanian graduates' entrepreneurial tendencies using the University of Dar es Salaam as a case in point. A cross-sectional design was employed; graduates were sampled using systematic random sampling. A semi-structured questionnaire which included the General Enterprising Tendencies (GET) Test was applied in gathering information. Data were analyzed using descriptive statistics and binary logistic regression. Entrepreneurship education, parents' education and number of children in a family determine entrepreneurial tendencies of Tanzanian graduates. Graduates with training in entrepreneurship and those coming from educated families had greater overall entrepreneurial characteristics, higher achievement motivation, more personal control, risk-taking propensity and greater self-esteem than a comparable cohort. Courses focusing on preparing the future entrepreneur are highly recommended. Higher learning institutions countrywide are urged to establish business incubator programmes in order to tap and develop the entrepreneurial talents at an early stage.

**Key words:** *GET test, entrepreneurial tendency, business start-up, Tanzania.*



### 3.2 Introduction

Entrepreneurship is regarded to have contribution towards employment creation, self sufficiency and wealth for nation and individuals (Olufunso, 2010). Focus on entrepreneurship has revealed that both the nature and the role of entrepreneurs are essential for economic growth and business development (Rasli *et al.*, 2013). Different scholars define entrepreneur and entrepreneurship differently (see O'Neil *et al.*, 1999; Nieman, Hough and Nieuwenhuizen, 2003; Ismail, 2009; van der Berg, 2007; Siyanbola *et al.*, 2009). This paper adopts the definitions used by Brockhaus (1980) and Gartner (1988) to define entrepreneur and entrepreneurship. Brockhaus (1980) defines entrepreneur as a major owner and manager of a business venture while Gartner (1988) defines "Entrepreneurship as the creation of new organizations." He further explains that what differentiates entrepreneurs from non-entrepreneurs is that entrepreneurs create organizations (business ventures) while non-entrepreneurs do not. In this sense entrepreneurship can broadly be defined as a process of starting and running one's own business.

Entrepreneurial tendencies are referred to as characteristics that make one person an entrepreneur and another one not an entrepreneur (Mazzarol, 2007). These are personality characteristics and environmental forces that shape individuals' behaviour and determine whether they will or will not engage in entrepreneurial activities (Bird, 1988). According to Mazzarol (2007), the key factors likely to influence the propensity for entrepreneurship are: The need for achievement, a tolerance for ambiguity, the propensity for taking calculated risks, internal locus of control and the desire for personal control. Factors likely to trigger entrepreneurial behaviour might also include the individual's previous work or career history.

Other characteristics include a person's sex, education level, family background and ethnicity. According to the author, these qualities have been identified in different combinations as those that characterise the typical entrepreneur.

Literature on African entrepreneurship especially on graduates' entrepreneurial tendencies is scanty. Most scholars in the field have concentrated in Europe, America, Australia and Asia (see Ajzen, 1987 and 1991; Chen, Greene and Crick 1998; Shapero, 1982; Mazzarol, 2007; Nabi and Holden; 2008; Ismail, 2009; Wang, Lu and Millington, 2011; Ali; Lu and Wang, 2012). Besides, the available little literature on African entrepreneurship has been on entrepreneurial intention (Olufunso, 2010; Siyanbola *et al.*, 2009; Maina, 2011).

The increasing interest in entrepreneurship in most parts of the world, especially in developing economies is due to the fact that entrepreneurial activities (typified by new venture formation) are increasingly being considered as a means of invigorating the economy and a way of coping with unemployment problems that characterize most developing economies (Mahadea, 2013). Thus, more people, and very recently graduates, are being encouraged into owning and growing businesses.

Regarding antecedent factors, Tanzania presents an interesting case here; during colonial days a consistent policy was adopted to limit participation of indigenous Africans, and to a lesser extent, Asians, in business activities (Olomi, 2009). Therefore, at independence, the indigenous population was marginalized and had not developed entrepreneurial skills enough to excel in the competitive business environment; hence, they could not compete in an international market. For example, in 1961, about 34 581 Africans and 7500 Asians held retail trading licenses, but Asians handled well over two-thirds of the trade volume (Rweyemamu, 1979).

In 1967, the post-colonial government adopted a radical transformation to development, through the Arusha Declaration and “Ujamaa policy” (socialist policy) whereby all major means of production in the country were nationalized. During this epoch, not only did the state become the major owner, controller and manager of the state owned enterprises but also the sole employer (Ngowi, 2009); hence hindering entrepreneurship as a sector. Entrepreneurs were regarded as exploiters and “enemies of the state”. Likewise, Tanzanians were indoctrinated to hate virtually everything capitalistic including entrepreneurship. The slogan “*Ubepari ni Unyama*” (capitalism is inhuman) was heard on the radio after every news bulletin. Thus, entrepreneurship was made attractive only for the morally deviant individuals (Chiraka, 2012).

Ujamaa policy failed and the country entered into economic crises in the 1980s when there was virtually scarcity of every consumer good. The economic crisis forced the government to liberalize trade and start implementing a radical transformation programme under the support of the World Bank and the International Monetary Fund (IMF) from 1986 (Olomi, 2009). The Economic Restructuring Programme (ERP) involved liberalization of virtually all sectors of the economy and privatizing all of the nationalized ones. Under the ERP, the government gradually changed its economic policy from reliance on state-run enterprises to promotion of foreign investment and local entrepreneurship. The private sector is now viewed as the engine of economic growth and the role of government has been re-defined to focus on facilitation rather than direct ownership, control and operation of enterprises. In addition, education authorities started to see entrepreneurship education as important for the development of the country. They started to incorporate entrepreneurship education in their syllabi (Chiraka, 2012). This has happened largely because the government has realized that it cannot absorb all the graduates as their number is increasing daily while the capacity of the government is on a diminishing trend.

For the stated policy changes to have positive effects in Tanzania, a systematic analysis of entrepreneurial tendencies of graduates who are among major beneficiaries of policy changes is required. As of recent, such studies have not been documented. This paper tries to fill this knowledge gap by presenting a Tanzanian case using the General Enterprising Tendencies (GET) Test and the logistic regression analysis. Specifically, this paper assesses the determinants of entrepreneurial tendencies amongst university graduates in the country. In so doing, it tries to answer two key questions: “how inclined are Tanzanian graduates towards entrepreneurship?” and “what factors most significantly influence their entrepreneurial tendencies?”

### **3.3 Entrepreneurship: A Theoretical Reflection**

Numerous sociological, economic, cultural and psychological theories have been put forward to explain the science of entrepreneurship (Islam, 1989; Islam and Mamun, 2000; Alam and Hossan, 2003; Kinunda-Rutashobya and Olomi, 1999; Ebeling, 2001). In his theory on need for achievement, David McClelland (1961) emphasized the relationship of achievement motivation or need for achievement (symbolically written as  $n\text{Ach}$ ) to economic development via entrepreneurial activities. He wrote: “the presumed mechanism by which  $n\text{-Achievement}$  level translate itself into economic growth is the entrepreneurial class. If the  $n\text{-Achievement}$  level is high, there will presumably be more people who behave like entrepreneurs" (Islam, 1989).

According to McClelland (1961) one would expect a relatively greater amount of entrepreneurship in a society if the average level of need achievement in a society is relatively high. Consequently, McClelland advocates increasing level of need-achievement in a society in order to stimulate entrepreneurship and economic growth. He also suggests that the  $n\text{Ach}$  level can be increased in an individual through training and by creating

appropriate culture (Islam and Mamun, 2000). However, Everett Hagen argues that certain social change causes psychological changes in a group or in an individual. He believes that the initial condition leading to eventual-entrepreneurial behaviour is the loss of status by a group (Islam, 1989). According to Hagen, loss of status can occur in one of the four ways: i) the group may be displaced by force, ii) it may have its valued symbols denigrated, iii) it may drift into a situation of status inconsistency or iv) it may not be accepted in a new society, and the outcomes or reactions of the loss of status are retreatism, ritualism, innovation, reformism and rebellion. Among these reactions retreatism is important for entrepreneurship. Because retreatism is characterized by psychological repression of the trauma associated with the status loss (Alam and Hossan, 2003). According to these theories, certain attitudinal and psychological attributes differentiate entrepreneurs from non-entrepreneurs, and successful entrepreneurs from unsuccessful ones. Personality or trait theories have nevertheless been heavily criticized. Critics have argued that entrepreneurial outcomes and activities cannot be solely explained by the psychological attributes of the individual person. Factors external to the entrepreneur or firm ought to be considered. These are the environmental or contextual factors (Kinunda-Rutashobya and Olomi, 1999).

In his theory on protestant values, Max Weber argued that protestant or Calvinistic logic or values were instrumental in promoting capitalist enterprise. These values included an emphasis on the inherent goodness of work itself. A person's work was regarded as a calling in the very literal rendering of the concept of vocation. Moreover, the experience of financial rewards from one's work was regarded as a manifestation that one was blessed by God, a number of elect few predestined to share this grace. Robert Park in 1928 introduced the Marginal and Tension Theory which states that a marginal man is one whose fate has condemned him to live in two societies.

The two societies are not merely different but antagonistic cultures like occidental and oriental culture. Sometimes, for their existence, the marginal men engage themselves in business because marginal man can't be accepted widely in any society. So, from the group of marginal man there is a likelihood of creating more entrepreneurs (Islam and Mamun, 2000).

The Marginal and Tension Theory of entrepreneurship fits into the context of this paper because Tanzanian graduates today, come out of universities as marginal citizens threatened by un-employment in labour markets. Marginality as a feeling or attitude of being threatened by job-lessness, can explain the attitude of creativity and self-employment not because they want to be self-employed, but as a defensive mechanism against marginalization. However, this is debatable and may be pursued as further research concept.

Economic theorists on the other hand, view entrepreneurship and economic development as being interdependent. Economic development takes place when a country's real national income increases overall period of time wherein the role of entrepreneurs is an integral part. Schumpeter's theory of innovation is a pioneering work of economic theories which argues that the innovation and technological change of a nation comes from the entrepreneurs, or wild spirits (Islam, 1989). Hence an entrepreneur is seen as the one who perceives the opportunities to innovate and carry out new combinations or enterprises. According to Kirzner what guides entrepreneurs in this task is the anticipation of profits and revenues in excess of the expenses to bring goods to market and the avoidance of losses (Ebeling, 2001).

This study situates itself in the domain of the Theory of Planned Behaviour which tries to explain entrepreneurship as a product of career choice process. The Theory of Planned Behaviour is much more appropriate in predicting and understanding people's intentions to engage in various activities, in this sense the graduates' intentions to engage in self-employment as a career. The Theory of Planned Behaviour is an extension of the Theory of Reasoned Action (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975). A central factor in the Theory of Planned Behaviour is the individual's inclination to perform a given behaviour. As a general rule, the stronger the inclination to engage in behaviour, the more likely should be its performance (Ajzen, 1991). It should be clear, however, that a behavioural inclination can find expression in behaviour only if the behaviour in question is under volitional control, that is, if an individual can decide at will to perform or not perform the behaviour (Ajzen, 2001). Many studies continue to demonstrate the applicability of the theory in choosing a career (Vincent *et al.*, 1998).

Douglas and Shepherd (2002) further explain that psychologists have examined the relationship between entrepreneurial behaviour and personality characteristics such as creativity and the need for achievement. Sociologists on the other hand, have identified group characteristics such as religion and so-journing status that have been linked with entrepreneurship behaviour. At the same time, economists have attempted to explain entrepreneurship through the interaction of economic conditions and psychological factors. Douglas and Shepherd (2002) further suggest that, in all these three disciplines, researchers have typically asked either of two basic questions: Who is an entrepreneur? When does entrepreneurial behaviour arise? The answers to these questions vary depending on the discipline, but in many instances there has been a strong reliance on the assumption that entrepreneurship is associated with some stable set of individual characteristics.

There is little appreciation of the possibly transitory nature of the entrepreneur's status. Hence, there has been little or no research on the process of becoming an entrepreneur through self-employment and the sociological and organizational contexts in which it unfolds.

### **3.4 Methodology**

This study involved the University of Dar es Salaam graduates regardless of their locations in the country. A cross-sectional design was employed and individual graduates formed the sampling unit. The sample involved graduates of the University of Dar es Salaam from 2000/2001 to 2010/2011. Graduates were grouped into two clusters: those who had studied entrepreneurship (graduates of the University of Dar es Salaam Business School-UDBS) and those who had not studied entrepreneurship (graduates of the College of Arts and Social Sciences-CASS). The sample size was 308 graduates, whereby 119 out of 2436 graduates were from UDBS and 189 out of 6889 graduates were from CASS. This sample size was considered adequate at 95% confidence level, 5.5% margin of error and 50% skewness level. Systematic random sampling (SRS) was used to get the required sample size. The systematic random sampling was repeated in order to replace the sampled graduates who were not alive or were not living in the country at the time of this study. Fortunately, none of them were deceased but seven of them (two from CASS and 5 from UDBS) were not living in the country.

A semi-structured questionnaire which included the General Enterprising Tendencies (GET) Test was used in collecting data. The GET test was slightly modified to include examples which are relevant to the Tanzanian context. The GET test has 54 questions arranged in a matrix form and measures entrepreneurial tendencies based on the five measurable traits (Mazzarol, 2007).



Five entrepreneurial traits were: the need for achievement which was considered high if a respondent scored between 9 and 12, and low if he/she scored below 9. The need for autonomy and independence was high if a respondent scored 4 - 6 and low if scored below 4. Other traits were: the creative tendency propensity which was recorded high if a respondent scored 8-12 and low if scored below 8. Moderate/calculated risk-taking was high if a graduate obtained 8 -12 points and low if he/she obtained lower than 8. The final trait was the drive and determination which was considered high if the graduate scored 8 - 12 points and low if scored lower than 8 points.

The gathered data were then analysed using the Statistical Package for Social Sciences (SPSS) and the Microsoft Excel (MS Excel) computer packages whereby descriptive statistics and logistic regression were used. Logistic regression analysis was applied to test the extent to which social-demographic and economic factors such as entrepreneurship education, age, sex, birth order position of a respondent, parents/guardian occupation, parents/guardian alien status, and ethnicity influences graduates' enterprising tendencies. Graduates' Enterprising Tendencies was the binary dependent variable (measured as 1 = High if the graduate had high scores on the attribute; or 0 = Low if the graduate had low scores on the attribute). For more definition of variables see Table 3.1. The binary logistic regression is a generalized linear model used for binomial regression. In this study, the following binary logistic model was used:

$$\text{Logit}[p(x)] = \log\left[\frac{p(x)}{1-p(x)}\right] = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \varepsilon \dots \dots \dots 1$$

Logistic regression involves fitting an equation of the following form to the data:

$$\text{Logit}(p_i) = \alpha + \beta_1 x_{1,i} + \beta_2 x_{2,i} + \beta_3 x_{3,i} + \dots + \beta_p x_{p,i} + \varepsilon \dots \dots \dots 2$$

Where:

$Logit(p_i) = Y$  is binary and represents the probability of having high or low entrepreneurial

tendencies, coded as 0/1 respectively

$\beta_1 - \beta_p$  = Regression coefficients

$\alpha$  = Intercept

$x_{1,i} - x_{p,i}$  = Independent variables or predictor variables

$\varepsilon_i$  = Error term

**Table 3.1: Definition of model variables**

Variable	Variables definition and unit of measurement
Dependent variable	
Entrepreneurial tendencies	Binary: Y is 0 if the graduate had low entrepreneurial tendencies, and is 1 if had had high entrepreneurial tendencies
Independent variables	
AGE	Age of the respondent in years
SEX	Sex of the respondent (1 if Female, 0 if Male)
EED	Respondents' entrepreneurship education (dummy, measured as 1 if studied entrepreneurship; 0 if not)
BOP	Birth order position of a respondent;
POC	Parents/guardian occupation (dummy, 1 if self employed; 0 if otherwise)
ETH	Ethnic origin of a respondent (dummy, 1 if mchagga/mhindi/Mkinga; 0 if otherwise);
NCP	Total number of children parents had;
MSJ	Months a graduate spent jobless;
PED	Parents' education level measured in number of years spent schooling;
TFG	Time since first graduation in months;
MRT	Marital status of the respondent (1 if married; 0 if Otherwise);
DPS	Degree Programme studied (dummy, 1 if business related; 0 if otherwise)

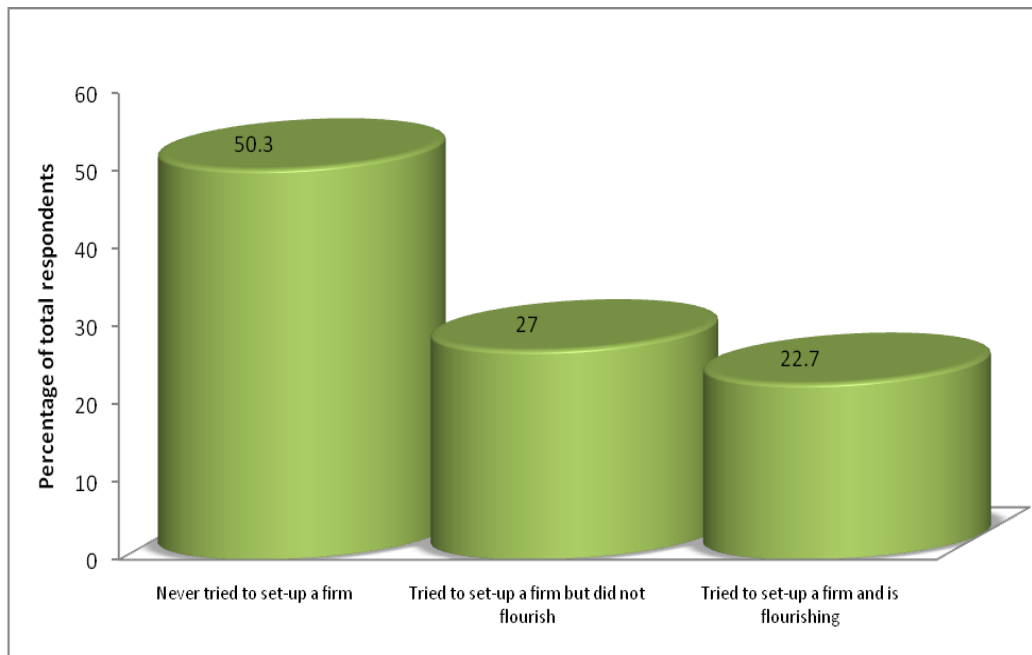
The binary logistic regression was preferred in analyzing data for this paper because the dependent variable was dichotomous, that is, high or low entrepreneurial tendencies based

on its merits compared to others. Logistic regression is regularly used rather than discriminant analysis when there are only two categories of the dependent variable. Logistic regression is also easier to use with SPSS than discriminant analysis when there is a mixture of numerical and categorical independent variable, because it includes procedures for generating the necessary dummy variables automatically, requires fewer assumptions, and is more statistically robust (O'Connell, 2005). The use of binary logistic regression in education research and higher education research in particular is very popular (see Austin, Yaffee and Hinkle, 1992; Cabrera, 1994; Okun, Benin and Brandt-Williams, 1996; St. John, Paulsen and Starkey, 1996; Peng and So, 2001; Saha, 2011).

### **3.5 Results and Discussion**

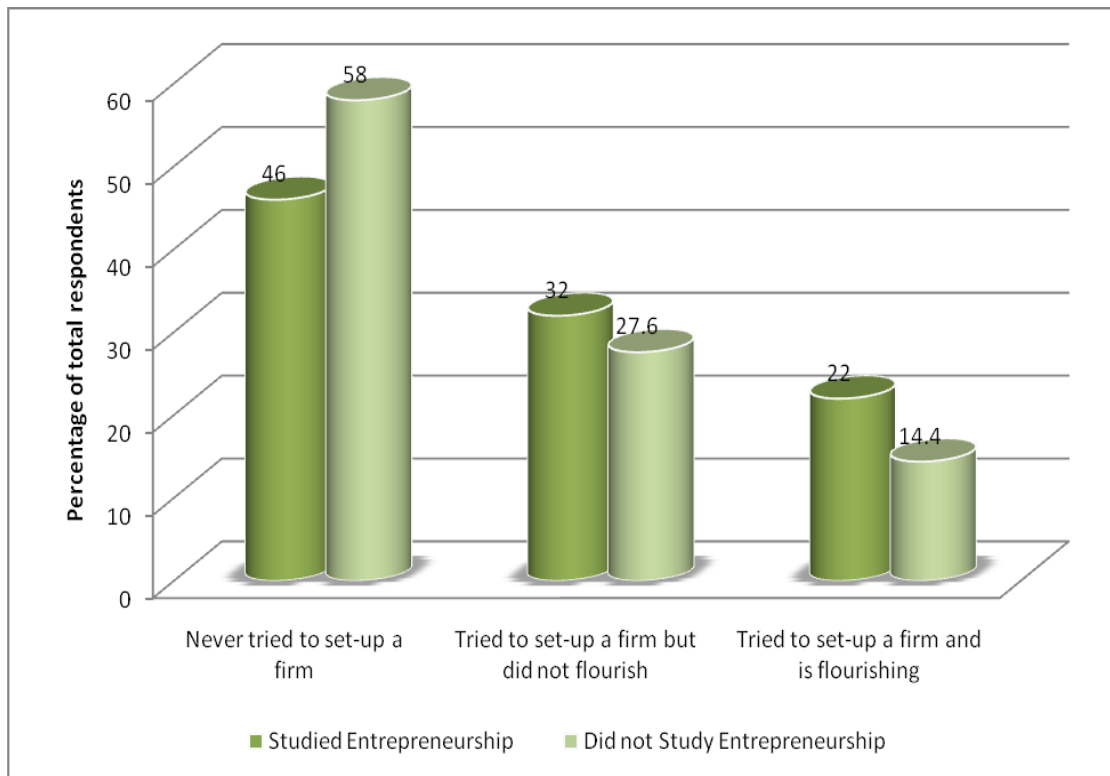
#### **3.5.1 Setting up and owning firms**

Findings from the survey indicated that 50.3% of the interviewed graduates reported that they had never established any firm, 27% had tried at one point in time to establish a firm but unfortunately the firm could not flourish. Only 22.7% had established their own firms and they were flourishing (See Fig.3.1). These findings imply that the majority of the surveyed graduates had never established their own firms. Consequently, they depended strongly on formal employment opportunities as their source of living. It is important to note that these findings even if they are low, show a slight increase in percentage of graduates establishing their own firms in Tanzania. This is because prior studies have reported very low figures, Mukyanuzi (2003), for example, found self-employment rates amongst graduates in Tanzania standing at 10%.



**Figure 3.1: Setting up and owning firms**

Among the cohort that had not studied entrepreneurship, 58% of the graduates had never established any firm compared to 46% of those who had studied at least one entrepreneurship course during their undergraduate studies. Besides, 32% of graduates who had studied entrepreneurship reported to have tried to establishing firms but were unsuccessful while 27.6% of those who had not studied entrepreneurship had tried to establish firms but without success. Equally important, 22% of those who had studied entrepreneurship reported to have set up their own businesses and perceived that they were successful, compared to only 14.4% of the cohort that had not studied entrepreneurship. The findings imply that graduates who had studied at least one entrepreneurship course during their undergraduate studies had intentions to establish their own firms (Fig. 3.2).



**Figure 3.2: Comparing different cohorts in setting-up and owning firms**

### 3.5.2 Determinants of entrepreneurial tendencies among graduates

To get general determinants of graduates' entrepreneurial tendencies, the General Entrepreneurship Tendencies Index (GETI) was developed. First, total individual scores from the GET test on the five attributes, that is, the need for achievement, need for autonomy, creative tendency, calculated risk taking and drive and determination were added up to obtain a single figure for each respondent. Then, the total scores were transformed using the “transform-record into different variable” SPSS data analysis option to get an index whereby respondents who scored 0-32 points on the scale were coded as low and those who scored above 32 points were coded as high.

Findings from an estimated general binary logistic regression model indicate a moderate relationship between prediction and grouping. The Hosmer and Lemeshow test the null hypothesis that there is a linear relationship between the predictor variables and the log

odds of the criterion variable. A p-value of 0.353 was obtained on the Hosmer and Lemeshow test indicating that there was no linear relationship between the predictor variables and the log odds of the criterion variable; hence, the null hypothesis is rejected. Similarly, the model generated a -2 Log likelihood of 387.432, Cox and Snell R Square of 0.299 and the Nagelkerke R Square of 0.398. Besides, the model generated a Chi-square of 8.877 for the Hosmer and Lemeshow Test. When Hosmer and Lemeshow test show an insignificant figure, it means the model adequately fits the data.

### **3.5.2.1 Entrepreneurship education and entrepreneurial tendencies**

The Omnibus test of model coefficients was statistically significant at  $p = 0.001$  and produced a Chi-square of 32.043. When the Omnibus tests of model coefficients is statistically significant, it means that there is adequate fit of the data to the model and that at least one of the covariates is significantly related to the response variable. The Wald criterion shows that entrepreneurship education made a significant contribution in predicting entrepreneurial tendencies of the surveyed graduates. The model produced a p-value of 0.005 and the Wald of 7.899. Exp (B) values which indicated that when entrepreneurship education increased by 0.483 coursed the odds ratio to be 0.727 times as large and therefore graduates were 0.727 times more likely to have higher entrepreneurial tendencies. Similar findings were obtained by Siyanbola *et al.* (2009) who studied the determinants of entrepreneurial propensity of Nigerian undergraduates and found that entrepreneurial education, among other things influenced entrepreneurial propensity of Nigerian undergraduates. The authors further argue that entrepreneurship training and communication initiatives are key sources of positive entrepreneurial influence.

### **3.5.2.2 Effect of number of children on entrepreneurial tendencies**

The findings further indicated that number of children in a family was another strong predictor of graduates' entrepreneurial tendencies at  $p = 0.029$ , a Wald statistic of 4.793 and an Exp (B) of 0.882. A Wald statistic of 4.793 demonstrates that number of children, contributed significantly to graduates' entrepreneurial tendencies. Exp (B) value indicates that when the number of children increases by 0.882 the odds ratio is 0.125 times as large, and therefore graduates are 0.125 times more likely to have higher entrepreneurial tendencies. The findings correspond to those by Ramsodh (2013) who found that household size had a significant coefficient and marginal effect on the probability of becoming an entrepreneur. Like in a study by Ramsodh (2013), it was found that household size had a negative relation with the probability of becoming an entrepreneur.

### **3.5.2.3 Effect of parents' education on entrepreneurial tendencies**

Likewise, parents' (father, mother or guardian depending on who was the household head) education level was another factor with a very strong contribution to predicting graduates' entrepreneurial tendencies. The results were statistically highly significant at  $p = 0.000$ , Wald = 12.541 and Exp (B) = 0.373. Moreover, a Wald statistic of 12.541 shows that parents' education level contributed highly to predicting graduates' entrepreneurial tendencies. The results further indicated that, when the parents' education level rises by 0.373 schooling year the odds ratio is 0.986 implying that graduates are 0.986 more likely to have higher entrepreneurial tendencies (Table 3.2). These findings confirm the findings by Van Praag (2005) who observed that parental background characteristics such as education or job level of the father and sometimes mother influence the probability of starting up a firm but not entrepreneurial performance. People are more likely to become entrepreneurs if their father was also an entrepreneur and /or if their father had a higher qualified job or a higher level of education (Van Praag, 2005).

**Table 3.2: General results of the estimated binary logistic regression model**

Variable	Coefficient (B)	S.E.	Wald	Df	Sig.	Exp (B)
Months spent without a job after graduation	- 0. 002	0.002	0.726	1	0.394	0.998
Number of children in a family	- 0. 125	0.057	4.793	1	0.029	0.882
Entrepreneurship education	0. 727	0.259	7.899	1	0.005	0.483
Sex of the respondents	0. 134	0.281	0.229	1	0.632	1.144
Marital status of the respondent	0. 014	0.262	0.003	1	0.957	0.986
Parents' education	0. 986	0.278	12.541	1	0.000	0.373
Parents' occupation	0. 245	0.477	0.264	1	0.608	0.783
Age of the respondent	- 0. 379	0.309	1.506	1	0.220	0.684
Birth order position	- 0. 026	0.151	0.030	1	0.862	0.974
Ethnic origin	- 0. 323	0.295	1.201	1	0.273	0.724
Constant	2. 417	0.632	14.633	1	0.000	11.209

Omnibus Tests of Model Coefficients (Chi-square = 32.043; sig. = 0.001); Cox & Snell R Square = 0.299

Hosmer & Lemeshow Test (Chi-square= 8.877; sig. = 0.353); Nagelkerke R Square = 0.398

### 3.5.2 Determinants of graduates' need for achievement

Birth order position of graduate was found to be a good predictor of the graduate's need for achievement trait. The Findings were statistically significant at  $p = 0.044$  and  $\text{Exp (B)} = 0.910$ . Moreover, a Wald test of 1.763 shows that birth order position, significantly contributed in predicting graduates' need for achievement. The findings further indicated that when the birth order position rises by 0.910 level, the odds ratio is - 0.094 implying that graduates with lower birth order positions, that is, first and middle borns are 0.094 more likely to have higher need for achievement than the last borns.

Birth order generally refers to the sequence by which children are born into a family. The most important birth order positions, according to Sulloway (1999), are eldest, middle and youngest. As a rule, birth order differences in personality arise as a result of how children are raised (functional birth order or rearing order) rather than the sequence in which they are born. He postulated further that by influencing the strategies that siblings develop in competition for parental favour, birth order fosters differences in personality that in turn correlates with differences in creative achievement. According to him, first-borns tend to be conscientious, obedient, hard-driving and bossy.



Later-borns are more flexible, innovative, laid-back and sociable. These characteristics can impact entrepreneurs from the start: Older siblings often go for the safe bet, while the younger ones are likely to be risk-takers. First-borns might make better franchisees, while later-borns often undertake more experimental and quirkier businesses.

However, Sulloway's premise may be true in certain contexts, and it is difficult to substantiate in others. For example, in an African family where a man is likely to get married to more than one wife, even wives compete for favours. In this context, where there can be more than one first and last borns, it is difficult to catalog who falls where in the birth order. But in European context, where a man is most likely to get married to only one wife such scenarios can be common. Again in a context where a family has the only child, this categorization does not have any meaning and the child is most likely to grow up without any competition.

The findings indicated as well that parents' education level is a strong predictor of the graduate's need for achievement. The findings were statistically significant at  $p = 0.005$  and  $\text{Exp (B)} = 0.432$ . Additionally, a Wald of 8.065 illustrates that parents' education level, contributed significantly to predicting graduates' need for achievement. The results further indicated that when the parents' education level rises by 0.432 schooling years, the odds ratio is 0.838 implying that child of educated parents are 0.838 more likely to have higher need for achievement (for more results (Table 3.3). These findings compare to those of Djankov *et al.* (2004) who observed that higher levels of parents' education are significantly positively associated with entrepreneurship, and this effect is quite robust.

**Table 3.3: Results of the binary logistic regression for need for achievement**

Variable	Coefficient (B)	S.E.	Wald	Df	Sig.	Exp (B)
Sex of the respondents	0.043	0.304	0.020	1	0.888	1.044
Age of the respondent	0.004	0.022	0.028	1	0.868	1.004
Months spent without job after first graduation	- 0.002	0.002	0.873	1	0.350	0.998
Number of children parents had	0.037	0.057	0.435	1	0.510	1.038
Birth order position	- 0.094	0.071	1.763	1	0.044	0.910
Entrepreneurship education	0.441	0.508	0.756	1	0.385	0.643
Time since first graduation in months	- 0.018	0.039	0.214	1	0.644	0.982
Ethnic origin	- 0.012	0.027	0.196	1	0.658	0.988
Marital status of the respondent	0.286	0.315	0.824	1	0.364	1.331
Degree programme studied	0.069	0.309	0.050	1	0.824	0.933
Parents' education	0.838	0.295	8.065	1	0.005	0.432
Parents' occupation	0.226	0.575	0.154	1	0.694	0.798
Constant	1.347	1.027	1.719	1	0.045	3.846

Omnibus Tests of Model Coefficients (Chi-square = 15.700; sig. = 0.266); Cox & Snell R Square = 0.053  
Hosmer & Lemeshow Test (Chi-square = 8.863; sig. = 0.354); Nagelkerke R Square = 0.073

### 3.5.3 Determinants of graduates' need for autonomy and independence

Regarding determinants for the graduates' need for autonomy and independence, the findings showed that age of the respondent was a strong predictor of the graduate's need for autonomy and independence. The findings were statistically significant at  $p = 0.026$  and  $\text{Exp (B)} = 0.945$ . A Wald of 3.341 demonstrates that age of the graduate, contributes significantly to predicting graduates' need for autonomy and independence. The results further indicated that when the age of the graduate rises by 0.945 years, the odds ratio is 0.057, implying that older graduates are 0.057 more likely to have higher need for autonomy and independence than younger ones.

Older age correlates with more successful entrepreneurs up to the age of 40, after which it has limited or no impact. This is true because in most cases older individuals have generally completed more complex projects such as buying a house, or raising a family (Ressi, 2011). In addition, older people have developed greater vocational skills than their younger counterparts in many, but not all, cases. It is argued that the combination of successful project completion skills with real world experience helps older entrepreneurs identify and address more realistic business opportunities.

Parents' occupation significantly predicts the graduates' need for autonomy and independence ( $p = 0.042$  and  $\text{Exp (B)} = 0.318$ ). The model scored a Wald of 3.157 which implies that parents' occupation contributes significantly to predicting graduates' need for autonomy and independence. The findings further indicated that when parents' occupation rises by 0.318 units, the odds ratio is 1.145 implying that graduates born in an entrepreneurial family are 1.145, more likely to have higher need for autonomy and independence. For more findings on determinants for the graduates' need for autonomy and independence, see Table 3.4.

According to Lindquist *et al.* (2012), parents' occupation matters; they argue that in most cases, an entrepreneurial parent will have an entrepreneurial child. They further emphasized that parental entrepreneurship increases the probability of children's entrepreneurship by about 60%. They further show that for adoptees, both biological and adoptive parents make significant contributions. These effects, however, are quite different in size. The effect of post-birth factors (adoptive parents) is approximately twice as large as the effect of pre-birth factors (biological parents). Many local examples exist in Tanzania (among the Wachaga, Wakinga and Tanzanians with Indian origin) as well to support this argument. This is because children of entrepreneurs have the opportunity to learn how to run businesses, as their parents act as their role models.

**Table 3.4: Results of the binary logistic regression for need for autonomy**

Variable	Coefficient (B)	S.E.	Wald	Df	Sig.	Exp (B)
Sex of the respondents	0.101	0.346	0.085	1	0.770	1.106
Age of the respondent	0.057	0.037	3.341	1	0.026	0.945
Months spent without job after first graduation	- 0.001	0.004	0.160	1	0.689	0.999
Number of children parents had	0.070	0.061	1.304	1	0.254	1.072
Birth order position	- 0.076	0.080	0.902	1	0.342	0.927
Entrepreneurship education	0.399	0.316	1.592	1	0.207	1.490
Time since first graduation in months	0.487	0.384	1.611	1	0.204	1.627
Ethnic origin	0.465	0.348	1.780	1	0.182	1.592
Marital status of the respondent	0.053	0.345	0.024	1	0.878	1.054
Degree programme studied	0.199	0.692	0.083	1	0.774	0.820
Parents' education	0.039	0.330	0.014	1	0.907	0.962
Parents' occupation	1.145	0.780	3.157	1	0.042	0.318
Constant	0.735	1.195	0.379	1	0.538	2.086

Omnibus Tests of Model Coefficients (Chi-square = 14.658; sig. = 0.329); Cox & Snell R Square = 0.047  
Hosmer & Lemeshow Test (Chi-square = 8.351; sig. = 0.400); Nagelkerke R Square = 0.074

### 3.5.4 Determinants of graduates' creative tendency

Two variables were found to determine graduates' creative tendency propensity; these are: the number of children in a family and parents' education. The number of children in a family significantly predicted graduates' creative tendency propensity with  $p = 0.010$  and  $\text{Exp (B)} = 1.202$ . Important to note also is the Wald test; the model had a Wald statistic of 6.711 which implies that number of children in a family highly contributed in predicting graduates' creative tendency propensity. The findings further indicated that if the number of children in a family increases by 1.202 children, the odds ratio is 0.184 implying that children born in a family with larger household size are 0.184 more likely to have higher creative tendency propensity. Families and businesses have often been treated as naturally separate institutions (Aldrich and Cliff, 2003). In this paper it has been found that families and businesses are inextricably intertwined; the family composition and relations have implications for the emergence of new business opportunities, opportunity recognition, business start-up decisions, and the resource mobilization process.

Equally important is the parents' education level, which was found to be a good predictor of graduates' creative tendency propensity. The model produced statistically significant results for this variable at  $p = 0.040$ ,  $\text{Exp (B)} = 1.681$  and Wald statistic = 3.056. These findings further demonstrated that when parents' education level increases by 1.681 schooling years, the odds ratio is 0.519, implying that children of educated parents are 0.519 more likely to have higher creative tendency propensity than others (Table 3.5 presents more findings). These findings underline the importance of parents and parents' education in shaping their children's career aspirations. The findings correspond with those by Udofia and Akpan (2013).

**Table 3.5: Results of the binary logistic regression model for creative tendency**

Variable	Coefficient (B)	S.E.	Wald	Df	Sig.	Exp (B)
Sex of the respondents	0.410	0.296	1.923	1	0.166	0.663
Age of the respondent	0.022	0.031	0.526	1	0.468	0.978
Months spent without job after first graduation	0.005	0.016	0.090	1	0.765	1.005
Number of children parents had	0.184	0.071	6.711	1	0.010	1.202
Birth order position	- 0.019	0.073	0.067	1	0.796	0.981
Entrepreneurship Education	0.305	0.282	1.175	1	0.278	1.357
Time since first graduation in months	- 0.312	0.345	0.817	1	0.366	0.732
Ethnic origin	0.309	0.315	0.959	1	0.328	1.362
Marital status of the respondent	0.198	0.307	0.418	1	0.518	1.219
Degree programme studied	0.216	0.592	0.133	1	0.715	1.241
Parents' education	0.519	0.297	3.056	1	0.040	1.681
Parents' occupation	0.151	0.503	0.090	1	0.764	1.163
Constant	1.400	1.047	1.788	1	0.041	0.247

Omnibus Tests of Model Coefficients (Chi-square = 20.874; sig. = 0.075); Cox & Snell R Square = 0.066  
Hosmer & Lemeshow Test (Chi-square = 7.084; sig. = 0.528); Nagelkerke R Square = 0.094

### 3.5.5 Determinants of graduates' calculated risk-taking

Regarding determinants of graduates' moderate or calculated risk-taking propensity, the findings show that entrepreneurship education was a strong predictor of the trait with  $p = 0.045$  and  $\text{Exp (B)} = 1.589$ . Likewise, the model produced a Wald of 3.166 which implies that entrepreneurship education contributes significantly to predicting graduates' calculated risk-taking propensity.

It was further found that when entrepreneurship education increases by 1.589 it causes the odds ratio to be 0.463 implying that graduates who studied entrepreneurship are 0.463 more likely to have higher risk-taking propensity than others. This suggests that graduates with entrepreneurship education are more likely to have higher risk taking propensity than their counterparts. Unfortunately very few graduates had entrepreneurship education; this was among reasons why the majority of graduates had never established their own firms.

Another good predictor of risk-taking propensity was the parents' education with  $p = 0.031$ ,  $\text{Exp (B)} = 1.787$  and  $\text{Wald} = 4.662$ . The findings further demonstrates that, when parents' education level increases by 1.787 schooling years the odds ratio is 0.580 implying that children of educated parents are 0.580 more likely to have higher risk-taking propensity. This means that parents with higher education are more likely to have children with high calculated risk-taking propensity. However, very few parents were educated beyond primary school education. This is because, during Universal Primary Education (UPE) in Tanzania 1970s to 1980s, the emphasis was for every citizen to be able to read and write. Lower risk-taking propensity again explains in part why many graduates had never thought of establishing their own firm (Table 3.6 presents more details).

**Table 3.6: Results of the binary logistic regression model for calculated risk-taking**

Variable	Coefficient (B)	S.E.	Wald	Df	Sig.	Exp (B)
Sex of the respondents	0.344	0.288	1.424	1	0.233	1.410
Age of the respondent	- 0.002	0.004	0.167	1	0.683	0.998
Months spent without job after first graduation	0.029	0.019	2.518	1	0.113	1.030
Number of children parents had	0.071	0.058	1.484	1	0.223	1.074
Birth order position	- 0.053	0.068	0.614	1	0.433	0.948
Entrepreneurship education	0.463	0.260	3.166	1	0.045	1.589
Time since first graduation in months	- 0.162	0.286	0.319	1	0.572	0.851
Ethnic origin	0.257	0.290	0.785	1	0.376	1.293
Marital status of the respondent	0.077	0.269	0.081	1	0.776	0.926
Degree programme studied	0.420	0.593	0.502	1	0.479	0.657
Parents' education	0.580	0.269	4.662	1	0.031	1.787
Parents' occupation	0.249	0.481	0.268	1	0.605	0.780
Constant	1.421	0.581	5.982	1	0.014	0.241

Omnibus Tests of Model Coefficients (Chi-square = 20.146; sig. = 0.092); Cox & Snell R Square = 0.064  
Hosmer & Lemeshow Test (Chi-square = 10.335; sig. = 0.242); Nagelkerke R Square = 0.087

### 3.5.6 Determinants of graduates' drive and determination

Entrepreneurship education is a good predictor of graduates' drive and determination. The model produced a statistically significant result at  $p = 0.006$ ,  $\text{Exp (B)} = 2.056$ . Besides, the model produced a Wald of 7.642 signifying that entrepreneurship education contributes significantly to predicting graduates' drive and determination propensity. It was found that when entrepreneurship education increases by 2.056 courses the odds ratio is 0.721, implying that graduates who opted for entrepreneurship courses during their undergraduate studies are 0.721 more likely to have higher drive and determination propensity than those who had not studied entrepreneurship. It can be argued that graduates who attended at least one entrepreneurship course had high drive and determination. Besides, few graduates had had an opportunity to attend entrepreneurship courses, and that is why most of them had never established their own firms.

Another important determinant of graduates' drive and determination is parents' education. The findings showed that parents' education significantly predicts graduates' drive and determination with  $p = 0.040$ ,  $\text{Exp (B)} = 1.751$  and  $\text{Wald} = 4.224$ . The findings further showed that when parents' education level increases by 1.751 schooling years the

odds ratio is 0.560, implying that children of educated parents are 0.560 more likely to have higher drive and determination propensity than those of uneducated parents (For a detailed analysis see Table 3.7). Like in calculated risk-taking tendency, few parents had higher education which partly explains why most graduates in the country never considered entrepreneurship as an alternative career choice (Table 3.7 presents the details).

**Table 3.7: Results of the binary logistic regression model for drive and determination**

Variable	Coefficient (B)	S.E.	Wald	df	Sig.	Exp (B)
Sex of the respondents	0.010	0.274	0.001	1	0.971	0.990
Age of the respondent	0.001	0.003	0.249	1	0.618	0.999
Months spent without job after first graduation	0.001	0.002	0.560	1	0.454	1.001
Number of children parents had	0.075	0.063	1.415	1	0.234	1.078
Birth order position	0.037	0.066	0.310	1	0.577	1.038
Entrepreneurship education	0.721	0.261	7.642	1	0.006	2.056
Time since first graduation in months	0.026	0.275	0.009	1	0.925	1.026
Ethnic origin	0.014	0.286	0.002	1	0.962	1.014
Marital status of the respondent	0.082	0.261	0.099	1	0.753	1.086
Degree programme studied	0.542	0.565	0.919	1	0.338	0.582
Parents' education	0.560	0.273	4.224	1	0.040	1.751
Parents' occupation	0.067	0.464	0.021	1	0.885	1.070
Constant	1.022	0.561	3.314	1	0.069	0.360

Omnibus Tests of Model Coefficients (Chi-square = 18.593; sig. = 0.136); Cox & Snell R Square = 0.059  
Hosmer & Lemeshow Test (Chi-square = 6.176; sig. = 0.628); Nagelkerke R Square = 0.079

### 3.6 Conclusions and Recommendations

This study concludes that six factors contribute to predicting entrepreneurial tendencies of the surveyed graduates. These factors are: Entrepreneurship education, parents' education level, number of children in a family, parents' occupation, age and birth order position. The study also concludes that some individual entrepreneurial determining factors such as age and birth order position cannot be changed, hence very little can be done if any to improve them. But most of the entrepreneurial determining factors in this study can be improved.

It is fair to conclude that, of all the factors, entrepreneurial education played a significant role to entrepreneurship as graduates who had studied entrepreneurship courses are more likely to be interested in start-ups. This partially explains why few graduates had



established their own businesses, since a small number of them had studied entrepreneurship courses. Parents' education level strongly contributed to predicting graduates' entrepreneurial tendencies. Having parents with good education increases one's possibility of having higher entrepreneurial tendencies. However, very few graduates had parents with good education level. Most of them had parents with primary education, and this may, to some extent, explain why most graduates had opted for formal employment rather than establishing their own firms.

Moreover, demographic characteristics such as number of children in a family significantly contributed in predicting entrepreneurial tendencies of the university graduates in the country. It is further concluded that social context plays an important role in shaping aspirations of graduates. Thus, entrepreneurship could be seen as an outcome of a social influence process. Since the family is the major agent of socialization, it may be pertinent to deduce that graduates who have established their own firms and become successful are, to some extent, motivated by their family status.

From these conclusions several policy implications for university educators, administrators and policy makers can be put-forward:

- i. Since entrepreneurship education has the potential of improving entrepreneurial propensity, universities and colleges in Tanzania should continue emphasizing entrepreneurial courses in their curricula to reflect a broadening market interest in entrepreneurial education. In addition to courses focusing on preparing the future entrepreneur, institutional frameworks should be developed in order to tap and develop the talents at an early stage. This may help raise graduates' entrepreneurial tendencies and improve on self-belief and attitude towards career alternatives. Attitude towards career alternative constitutes an important part of

entrepreneurship development and must be developed during one's study. Therefore, if a student is not fully aware of entrepreneurship as an alternative employment, the student will never develop a positive attitude towards it. The student will instead develop a positive attitude towards employment career alternatives with which he is very familiar.

- ii. Since education of the parent partly contributes to graduates' entrepreneurial propensity and since parents as role models influence their children's attitude towards entrepreneurship; the government is urged to continue emphasizing on adult education. A compulsory, more structured and tailor made adult education which is effective in changing parents' perception over entrepreneurship is highly required, because very few graduates had parents with reasonable education levels. It is also suggested that the government should introduce entrepreneurship courses within the adult education curriculum.
- iii. Another policy suggestion emanating from this study relates to establishment of business incubator programmes. The suggested incubator programmes will not only support the graduates to improve their attitudes towards starting up firms but also facilitate emergence of new, technology-based firms from universities. Despite the fact that many higher learning institutions in the country have introduced entrepreneurship courses and programmes, none of them has a well developed, readily functioning business incubator.
- iv. There are several issues on graduate entrepreneurship in Tanzania that call for further studies; this study draws attention to only one of them, that is, the level of risk aversion. This study did not analyse the level of risk aversion among the graduates. Hence, it will be very interesting to investigate perception of risk among

the graduates in the country considering the fact that risk taking is recognized by scholars as a trait of a successful entrepreneur.

- v. Since birth order position matters, sometimes graduates are urged to join forces with their siblings, if possible, in forming and owning firms. Together they can offset their "inborn or rearing weaknesses" and can build a better business.

### 3.7 References

- Ajzen, I. (1987). Attitudes, traits and actions: Dispositional prediction of behaviour in personality and social psychology. *Advances in Experimental Social Psychology* 20: 1-63.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes* 50: 179-211.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Reviews Psychology* 52: 27–58.
- Ajzen, I. and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour*. Prentice-Hall, Illinois. 278pp
- Alam, J., and Hossan, M. A. (2003). Linking between franchising networks for entrepreneurship and economical development looking for a new model. [www.univie.ac.at/EMNET] site visited on 13/5/2011.
- Aldrich, H. E. and Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Towards a family embeddedness perspective. *Journal of Business Venturing* 18: 573–596.
- Ali, S., Lu, W. and Wang, W. (2012). Determinants of entrepreneurial intentions among the college students in: China and Pakistan. *Journal of Education and Practice* 3 (11): 13-21.

- Amin, M. E. (2005). *Social Science Research: Conception, Methodology and Analysis*. Makerere University Printery, Kampala. 462pp.
- Austin, J. T., Yaffee, R. A., and Hinkle, D. E. (1992). Logistic regression for research in higher education. *Higher Education Theory and Research* 8: 379 - 410.
- Babbie, E. (1990). *Survey Research Methods, Second Edition*. Wadworth Publishing Co. Belmont, California. 395pp.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review* 13 (3): 442-453.
- Brockhaus, R. H. (1980). Risk taking propensity of entrepreneur. *Academy of Management Journal* 23 (3): 509-520.
- Cabrera, A. F. (1994). Logistic regression analysis in higher education, an applied perspective. *Higher Education Theory and Research* X: 225-256.
- Chen, C. C., Greene, P. G., and Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing* 13 (4): 295-316.
- Chiraka, M. (2012). Entrepreneurship education: The road to sustainable development in Tanzania, HAKIELIMU, Dar es salaam.  
[hakielimu.org/publication\_download.php?En=234] site visited on 03/9/2012.

- Djankov, S., Miguel, E., Qian, Y., Roland, G., Zhuravskaya, E. (2004). Entrepreneurship: First results from Russia. [<http://www1.worldbank.org/finance/assets/images/entrepreneurshipprussia.pdf>] site visited on 04/9/2012.
- Douglas, E. J. and Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization entrepreneurship. *Journal of Theory and Practice* 26 (3): 81-90.
- Ebeling, R. M. (2001). Israel M. Kirzner and the Austrian theory of competition and entrepreneurship. [<http://www.fff.org/freedom/0801b.asp>] site visited on 13/7/2011.
- Fishbein, M. and Ajzen, I. (1975). *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. Addison-Wesley Publishing Company, Massachusetts. 578pp.
- Fisher, A. A., Laing, J. E., and Townsend, J. W. (1991). *Handbook for Family Operation Research and Design. 2nd Ed.* Population Council, New York. 77pp.
- Gartner, W. B. (1988). Who is an entrepreneur? Is the wrong question. *Journal of Entrepreneurship Theory and Practice* 13 (4): 47- 68.
- Islam, M. M. (1989). *Theories on Entrepreneurship*. University Grand Commission of Bangladesh (English version), Dhaka. 475pp.

- Islam, N., and Mamun, Z. M. (2000). *Entrepreneurship Development an Operational Approach*. University Press Limited, Dhaka. 240pp.
- Ismail, M. Z. (2009). Developing entrepreneurship curriculum in tertiary education: a study in polytechnics, ministry of higher education, Malaysia. [<http://usasbe.org/knowledge/proceedings/proceedingsDocs/2009/PaperID30.pdf>] site visited on 23/04/2014.
- Kinunda-Rutashobya, L. and Olomi, D, R. (1999). *African Entrepreneurship and Small Business Development*. DUP (1996) LTD, Dar es salaam. 319pp.
- Lindquist, M. J., Sol, J. and Van Praag, M. (2012). Why do entrepreneurial parents have entrepreneurial children? [[http://www1.fee.uva.nl/pp/bin/1292\\_fulltext.pdf](http://www1.fee.uva.nl/pp/bin/1292_fulltext.pdf)] site visited on 23/5/2014.
- Mahadea, D. (2013). Entrepreneurship in motion: Towards an interdisciplinary and an eclectic perspective. *Southern Africa Journal of Entrepreneurship and Small Business Management* 6: 21-38.
- Maina, R.W. (2011). Determinants of entrepreneurial intentions among Kenyan college graduates. *KCA Journal of Business Management* 3 (2): 1-18.
- Mazzarol, T. (2007). Awakening the entrepreneur: An examination of entrepreneurial orientation among MBA students. [[www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf](http://www.cemi.com.au/sites/all/publications/07EISB%20Paper%20Mazz.pdf)] site visited on 10/2/2014.

McClelland, D. C. (1961). *The Achieving Society*. D. Van Nostrand Co., Princeton. 514pp.

Mukyanuzi, F. (2003). Where has all the education gone in Tanzania? Employment outcomes among secondary school and university leavers. [<http://www.eldis.org/vfile/upload/1/document/0708/DOC15037.pdf>] site visited on 10/7/2013.

Nabi, G. and Holden, R. (2008). Graduate entrepreneurship: Intentions, education and training. *Education + Training* 50 (7): 545-551.

Ngowi, H. P. (2009). Economic development and change in Tanzania since independence: The political leadership factor. *African Journal of Political Science and International Relations* 3 (4): 259-267.

Nieman, G., Hough, J. and Nieuwenhuizen, C. (2003). *Entrepreneurship: A Southern African Perspective*. Van Schaik Publishers, Pretoria. 410 pp.

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in High Education* 33 (3): 301–314.

O'Connell, A. A. (2005). *Logistic Regression Models for Ordinal Response Variables*. Sage Publications, Thousand Oaks. 146pp.

O'Neill, R. C., Terblanché, N. S. and Keyter, L. (1999). *Creative Entrepreneurship*. Kagiso Tertiary, Cape Town. 324pp.



- Okun, M. A., Benin, M. and Brandt-Williams, A. (1996). Stay in college: moderators of the relation between intention and institutional departure. *Journal of Higher Education* 67: 577-596.
- Olomi, R. D. (2009). *African Entrepreneurship and Small Business Development, Context and Process*. Otme Company Limited, Dar es Salaam. 176pp.
- Olufunso, F. O. (2010). Graduate entrepreneurial inclination in South Africa: Motivations and obstacles. *International Journal of Business and Management* 5 (9): 87-98.
- Park, R. E. (1928). Human migration and the marginal man. *American Journal of Sociology* 33 (6): 881–893.
- Peng, C. J. and So, T. H. (2002). Logistic regression analysis and reporting: A primer. *Understanding Statistics* 1 (1): 31-70.
- Ramsoedh, V. (2013). Determinants and Propensity of Entrepreneurship in Developing Countries. Can We Distinguish Entrepreneurial Traits among the Very Poor? A Master Thesis Submitted to the Erasmus School of Economics, Erasmus University Rotterdam. 48pp.
- Rasli, A., Khan, S. R., Malekifar, S. and Jabeen, S. (2013). Factors affecting entrepreneurial inclination among graduate students of universiti teknologi malaysia. *International Journal of Business and Social Science* 4 (2): 182-188.

- Ressi, A. (2011). Is there a peak age for entrepreneurship? [<http://techcrunch.com/2011/05/28/peak-age-entrepreneurship/>] site visited on 05/7/2013.
- Rweyemamu, J. (1979). *The History and Institutional Setting of Tanzanian Industry*. Heinemann, London. 294pp
- Saha, G. (2011). Applying logistic regression model to the examination results data. *Journal of Reliability and Statistical Studies* 4 (2): 105-117.
- Shapero, A. (1982). Social dimensions of entrepreneurship. *The Encyclopaedia of Entrepreneurship* 1: 72-90.
- Siyanbola, W. O., Afolabi, O. O., Jesuleye, O. A., Egbetokun, A.A., Dada, A. D., Aderemi, H. O., Sanni, M. and Razak, M. (2009). Determinants of entrepreneurial propensity of Nigerian undergraduates: An empirical assessment. [<http://mpa.ub.uni-muenchen.de/35797/>] site visited on 05/7/2013.
- Smith, K. and Beasley, M. (2011). Graduate entrepreneurs: Intentions, barriers and solutions. *Education + Training* 53 (8/9): 722-740.
- St. John, E. P., Paulsen, M. B., and Starkey, J. B. (1996). The nexus between college choice and persistence. *Research in Higher Education* 37: 175-220.
- Sulloway, J. F. (1999). Birth order. *Encyclopedia of Creativity* 1: 189-202.

- Udofia, N. A., and Akpan, E. O. (2013). Parents' influences and the entrepreneurship occupational aspirations of wards in technical schools in Akwa Ibom State. *Developing Country Studies* 3 (4): 126-132.
- Van der Berg, A. (2007). Entrepreneurial Potential amongst Scholars in Selected Afrikaans High Schools. A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree Magister in Business Administration of the University of Johannesburg, Johannesburg. 87pp.
- Van Praag, M. (2005). *Successful Entrepreneurship Confronting Economic Theory with Empirical Practice*. Edward Elgar Publishing Limited, Massachusetts. 183pp.
- Vincent, P. C.; Peplau, L. A. and Hill, C. T. (1998). A longitudinal application of the theory of reasoned action to women's career behaviour. *Journal of Applied Social Psychology* 28: 761–778.
- Wang, W., Lu, W. and Millington, J. K. (2011). Determinants of entrepreneurial intention among college students in China and USA. *Journal of Global Entrepreneurship Research* 1 (1): 35-44.

## **CHAPTER FOUR**

### **4.0 BARRIERS TO BUSINESS START-UP AMONG TANZANIAN UNIVERSITY GRADUATES: EVIDENCE FROM THE UNIVERSITY OF DAR ES SALAAM**

Mangasini Atanasi Katundu<sup>1</sup> and Damian Mulokozi Gabagambi<sup>2</sup>

<sup>1</sup>Department of Community and Rural Development, Moshi Co-operative University, P.O.

Box 474, Moshi -Tanzania

(Corresponding author: [mangasini.katundu@mocu.ac.tz](mailto:mangasini.katundu@mocu.ac.tz) )

<sup>2</sup>Department Department of Agricultural Economics and Agribusiness Sokoine University of Agriculture, P. O. BOX 3007, Morogoro - Tanzania. Email: [gabagambi@suanet.ac.tz](mailto:gabagambi@suanet.ac.tz)

#### 4.1 Abstract

Graduate unemployment is a socio-economic problem in Tanzania. Both the government and the private sector have limited capacity to absorb new entrants into the labour market. In view of this, the government of Tanzania has tried to foster entrepreneurship development programmes in higher learning institutions with the assumption that graduates will be empowered in their entry into business. In spite of this initiative, very few graduates have managed to start their own businesses. This paper assesses barriers to business start-up among university graduates by drawing evidence from the University of Dar es Salaam. A cross-sectional research design was used with a sample comprising 308 graduates and 10 key informants. Data were collected using a structured questionnaire and a checklist and were analysed using confirmatory factor analysis was performed using Analysis of Moment Structures and the Statistical Package for Social Sciences software. Pearson's chi-square was used to test whether graduates who had not studied entrepreneurship and those who had studied entrepreneurship reported different start-up barriers. Inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitments on extended families and bureaucratic tendencies had greater contribution to hindering business start-up. It was concluded that entrepreneurship study influenced the way graduates perceived the barriers  $p < 0.05$ . Higher learning institutions should adopt competent based curricula in order to impart necessary entrepreneurial skills to students and use the business apprenticeship approach while students are still on studies.

**Key words:** *Entrepreneurship, business start-up barriers, university graduates, Tanzania.*

## 4.2 Introduction

Graduate entrepreneurship around the world is increasingly being viewed as a vital source of competitiveness and the engine for economic growth and development (Smith and Beasley, 2011; Nabi and Holden, 2008). It is extremely important in developing countries such as Tanzania whose economy is largely dependent on public sector employment and is lacking the critical mass of new start-ups. Nabi and Holden (2008) further articulate that higher education (HE) today is producing an ever increasing number of graduates. This is why government policy in many countries is seeking to promote business start-up as a viable career option. Studies conducted in the UK, South Africa, Malaysia, the European Union and Tanzania for example, have all shown that encouraging more graduates to pursue entrepreneurship is a top government agenda within these countries and is in line with regional economic growth targets (Anuar *et al.*, 2013; Shambare, 2013; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Mwasalwiba *et al.*, 2012; Fatoki and Chindoga, 2011; Sandhu *et al.*, 2011; European Commission, 2008; Nabi and Holden, 2008; Fielden *et al.*, 2000).

The entrepreneurship education agenda in universities therefore is viewed as a catalyst for stimulating entrepreneurial intentions (Pré, 2009; Global Entrepreneurship Monitor, 2011; van der Walt and van der Walt, 2008). Lekoko and Rankhumise (2012) asserts that the higher education system plays a critical role in developing entrepreneurs, in that universities have the potential to promote entrepreneurial capacities, shape enterprising mind sets and, more importantly, stimulate entrepreneurial intentions. In sum, there is a strong global drive, towards encouraging a greater proportion of students to consider and pursue venture creation as an alternative graduate career path (Lee *et al.*, 2005; Nabi and Holden, 2008; Kubegeya, 2010; Lekoko and Rankhumise, 2012). This is because business start-up plays a central role in job creation; many countries in the world especially those

within the Sub Saharan Africa region depend on entrepreneurial activities such as small business creation to tackle unemployment (Tayari, 2010).

Unemployment is a serious developmental problem in Tanzania, especially among graduates. Unemployment in the country is accelerated by the imbalance between the supply and demand for labour in the labour market, increasing of urban employment pressures with outflow of rural surplus labour to non-agricultural sectors and the increased number of new entrants in the labour market. For example, Mcha (2012) estimates new entrants into the labour market each year from colleges and universities countrywide to be 800 000 to 1 000 000 whereas URT (2010) estimates annual new job vacancies from both public and private sectors to be 630 000 with the private sector being the main contributor. Consequently, from 2001 until 2011, Tanzania unemployment rate averaged 11.9% reaching an all time high of 12.9% in December of 2001 and a record low of 10.7% in October of 2011 (URT, 2011).

Deloitte (2013) reports that the Tanzania's unemployment rate stood at 11.7% in 2012 whereas, Rweyemamu (2013) states that unemployment rate in Tanzania is higher than that in Uganda which in 2012 stood at 4.6% but lower than Kenya's (40%), Burundi's (35%) and Rwanda's (30%). Regardless of this, unemployment in Tanzania remains a constant threat to socio-economic development as it is higher than the tolerable rate of 4-6% (Prachowny, 2002).

Despite the challenges brought by unemployment, very few graduates in many countries are willing to engage in entrepreneurship (Kubegeya, 2010; Olomi and Sabokwigina, 2010; Mwasalwiba *et al.* 2012; Katundu and Gabagambi, 2014). The emerging trend of university graduates' lack of interest and inability to engage in entrepreneurial activities is

fast becoming a global problem (Makgosa and Ongori, 2012; Global Entrepreneurship Monitor, 2011); it is most severely experienced in developing countries where both poverty and unemployment are very high (Shambare, 2013). Regarding graduates lacking interest in entrepreneurship, van der Walt and van der Walt (2008) caution that, even though there is a strong correlation between tertiary education and the propensity to engage in entrepreneurship activities, acquiring university education does not necessarily convert an individual into an entrepreneur. A significant number of graduates prefer the guaranteed income of formal employment as opposed to the risks associated with entrepreneurship (Ebewo and Shambare, 2012; Makgosa and Ongori, 2012).

Low number of business start-up has also been reported among Tanzanian university graduates. Mwasalwiba *et al.* (2012) report falling rates of graduates' business start-up in Tanzania despite efforts in teaching entrepreneurship at universities. Kubegeya (2010) further argues that the idea of being an employer once one completes College or University education is still alien to the majority of Tanzanian university students. After hard three or four years on campus, many can only dream of seeking opportunities with already established firms within various towns and cities in the country. Shambare (2013) argues further that graduates still show very little interest in becoming entrepreneurs, even in the face of policies and programmes aimed at promoting entrepreneurship.

In view of this disparity, it is important to understand what drives students and graduates to explore business start-up and what constraints they are likely to encounter during the early stages of graduate business start-up, and what support systems can be put in place to increase the likelihood of conversion into an established business with growth potential. This paper assesses barriers to business start-up among university graduates in Tanzania, taking the University of Dar es Salaam as a case in point.



It further seeks to establish whether graduates who studied entrepreneurship during their undergraduate studies have different perceptions on barriers to business start-up as compared to those who had not studied entrepreneurship.

The following research question was investigated: *What barriers mostly discourage Tanzanian University graduates from engaging in entrepreneurial activities?* In order to respond to this question effectively, a comparative analysis between graduates who had studied entrepreneurship and those who had not studied entrepreneurship was performed first to determine whether the reported barriers differed among the two cohorts. Disaggregating graduates into these two cohorts provides a useful means to assess whether graduates in the two clusters require different type of support and assistance. It helps the responsible authorities in planning which support should be given to which group and when. The research question is broken into seven hypotheses as follows:

- ix. *There is no relationship between teaching methods and interest in business start-up among Tanzanian university graduates;*
- x. *There is no relationship between government support and interest in business start-up among Tanzanian university graduates;*
- xi. *There is no relationship between business experience and interest in business start-up among Tanzanian university graduates;*
- xii. *There is no relationship between start-up capital and interest in business start-up among Tanzanian university graduates;*
- xiii. *There is no relationship between university programmes and interest in business start-up among Tanzanian university graduates;*
- xiv. *There is no relationship between fear of failure and interest in business start-up among Tanzanian university graduates;*

- xv. *There is no relationship between social networking and interest in business start-up among Tanzanian university graduates.*

To address these hypotheses, this paper is structured in six main sections. Section one introduces the paper with some background on global graduate entrepreneurship. Section two presents a review of barriers to business start-up under the assumption that the success or failure of any person to start and own businesses is often reliant on overcoming a series of potential barriers. The Theory of Planned Behaviour (TPB) which informs this study is discussed in section three whereas the methodology is discussed in section four. This section details sampling procedures, data collection tools and methods, as well as data analysis techniques. Section five presents and discusses key findings pertaining to business start-up barriers among University graduates in Tanzania whilst conclusions and recommendations are discussed in section six. By identifying business start-up barriers as experienced by university graduates in Tanzania, it is expected that this paper will inform policymakers (at both local and central government levels) on how to formulate actionable strategies and universities in designing appropriate curriculum that could better respond to the obstacles.

#### **4.3 Barriers to Business Start-up: A Literature Review**

The success or failure of university graduates to start and own businesses is often dependent on overcoming a series of potential barriers, for instance, securing sufficient financial backing, adequate and appropriate guidance and training (Fielden *et al.*, 2000; EEC, 2004; Lee *et al.*, 2005; Kwong *et al.*, 2007; EEC, 2008; Nabi and Holden, 2008; Kusi, 2010; Yaghoubi, 2010; Smith and Beasley, 2011; Lekoko and Rankhumise, 2012; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Anuar *et al.*, 2013; Shambare, 2013).

Literature has shown that resources, especially financial resources are the universal need of entrepreneurs to start a venture. Lack of financial resources is the biggest hurdle in establishing a new firm (Pretorius and Shaw, 2004; Atieno, 2009). At the initial stage, entrepreneurs need financial assistance from internal as well as external sources in order to survive and prosper.

Lack of funds is a major barrier to making intention for entrepreneurship (Fatoki, 2011). In developing countries, there is little trend to have personal and family savings and also great difficulties in accessing finance (Lingelbach *et al.*, 2005). As cultural and social factors are important predictors for individuals in shaping their lives, they are also equally influencers in promoting entrepreneurial intentions and culture (Kreiser *et al.*, 2001). The social and cultural differences between different nations are important sources of determining entrepreneurial activities and development. A socio-cultural environment where entrepreneurship is valued and failure is regarded as an imperative feature of learning and development rather than a cause of stigma will produce some fertile results for entrepreneurship development (Thomas, 2001).

Smith and Beasley (2011), for instance, investigated factors which influenced seven graduates in the creative and digital industries to start their own businesses in Barnsley, South Yorkshire, UK – an area with lack of employing establishments and locally registered businesses. They employed questionnaires and semi-structured interviews to identify the constraining and enabling factors graduates may encounter when attempting to start a business, and explored the impact of support provided. Perceived constraining factors were: lack of general business knowledge, contradictory advisory support from external agencies, lack of sector-specific mentors, lack of finance and experience of familial entrepreneurship.

Likewise, lack of awareness about government facilities and support, female role in the society, and lack of social networking can become source of unfavorable intention (Chigunta, 2002; Maas and Herrington, 2006; Mian and Qureshi, 2010; Sandhu *et al.*, 2011).

A study by Shambare (2013) assessed barriers to student entrepreneurship in South Africa. He surveyed 235 university students and collected their views using self-administered questionnaires and studied them using cluster analysis. He found the following entrepreneurship barriers: Inappropriate syllabi and content. According to the author, for course content in any education setting, to be useful, should be in line with the economic realities of the country. At a micro- or individual-level the curricula must be comprehensive enough to prepare individual students to acquire practical entrepreneurial skills and knowledge. Ideally, a business management student, upon graduation, should be sufficiently qualified to draft a decent business plan. The reality is that university graduates are not only ill-prepared for business but also they are often not even qualified enough for the labour market. Clearly, this indicates inappropriate educational content in the area of entrepreneurial education.

Another barrier, according to Shambare (2013), is inappropriate teaching methods. Universities appear to drag their feet in proactively developing student-driven businesses. He further argues that students' lack of exposure to entrepreneurial concepts and realities within the South African context can be defined in two distinct ways. Firstly, as a result of widespread poverty, students often come from very poor backgrounds and are generally not exposed to the wider world around them. In addition, because of the apartheid legacy, black students' entrepreneurial intentions are 50 per cent lower than those of other ethnic groups. Secondly, as a result of apartheid's Bantu education system, universities today are

enrolling ill-prepared students. This, coupled with under-funded and under-resourced universities, means that many universities cannot afford to provide the appropriate training to increase students' exposure.

Lack of willingness to take risk and fear of failure is also an important barrier. In Pakistan, 27.73% of working age population has clarified that fear of failure stop them thinking about to become own boss, which is better compared to many other countries (Mian and Qureshi, 2010). Mwasalwiba *et al.* (2012) studied graduate entrepreneurship in Tanzania, contextual enablers and hindrances. The authors employed story-telling interviews as a strategy of data collection. They found that lack of start-up capital, inhibitive banking and taxation, issues of trust, poor technology, corruption, and cheap imports from countries such as China discourage graduate entrepreneurs' business ventures.

Entrepreneurial education, relevant business skills, knowledge and training can significantly improve entrepreneurial intention (Schröder, 2005). Similarly, Charney and Libecap (2000) found that entrepreneurial education and training have a significant role in boosting risk taking ability, introducing a new firm and intention to be self employed. High feeling about managerial competency and skills make it easier to develop intention for having own business (Peterman and Kennedy, 2003). Mian and Qureshi (2010) have revealed that lower human skills development, professional management and educational support is the key element of weak entrepreneurial culture in Pakistan.

Baena (2012) observed that developing countries like Pakistan face some serious variation in inflation, interest rate, exchange rate, import, aggregate demand, and investment. All of these unfavorable economic situations make negative impact actual and latent entrepreneurship.

Likewise, Ali *et al.* (2010) found political instability is negatively correlated with entrepreneurial intention. Mollentz (2002) also asserted that market issues and demand for products have positive impact on new venture growth and progress.

From these studies it can be argued that the barriers to entrepreneurship are in many forms and defining a situation as a barrier is context specific. In some of the findings obtained from these studies, there are slight differences and similarities. The differences may be attributed to differences in study designs and the general context in which each study was conducted. For example, Mwasalwiba *et al.* (2012) not only studied Tanzanian graduate entrepreneurs but also emphasized on the lack of start-up capital as the main impediment to starting a business firm in Tanzania. By studying only graduates' who had ventured into entrepreneurship the scholars ignored views from those who never established firms.

The reviewed studies on graduate entrepreneurship seem to converge on the notion that lack of finance or start-up capital is the main barrier to business startup. This study sought to establish if indeed that is the case in Tanzania. Because the Tanzanian context or environment varies significantly to that of other countries such as South Africa, Malaysia, Pakistan or UK, and because of the fact that there have been few studies on graduate entrepreneurship in Tanzania and bearing in mind that the only study which was conducted in Tanzania (Mwasalwiba *et al.* 2012) investigated only graduates' entrepreneurs; there was a need to study critically what discourages Tanzanian graduates from engaging in entrepreneurship from both graduates who were trained in entrepreneurship and those who never got entrepreneurship training perspective. This will help establish whether graduates from different training backgrounds perceive similar obstacles to business start-up or otherwise. This will further help to bring to light possible

areas for policy interventions including type of training required and university-led business support which needs to be enhanced.

#### **4.4 Using the Theory of Planned Behaviour to Assess Business Start-up**

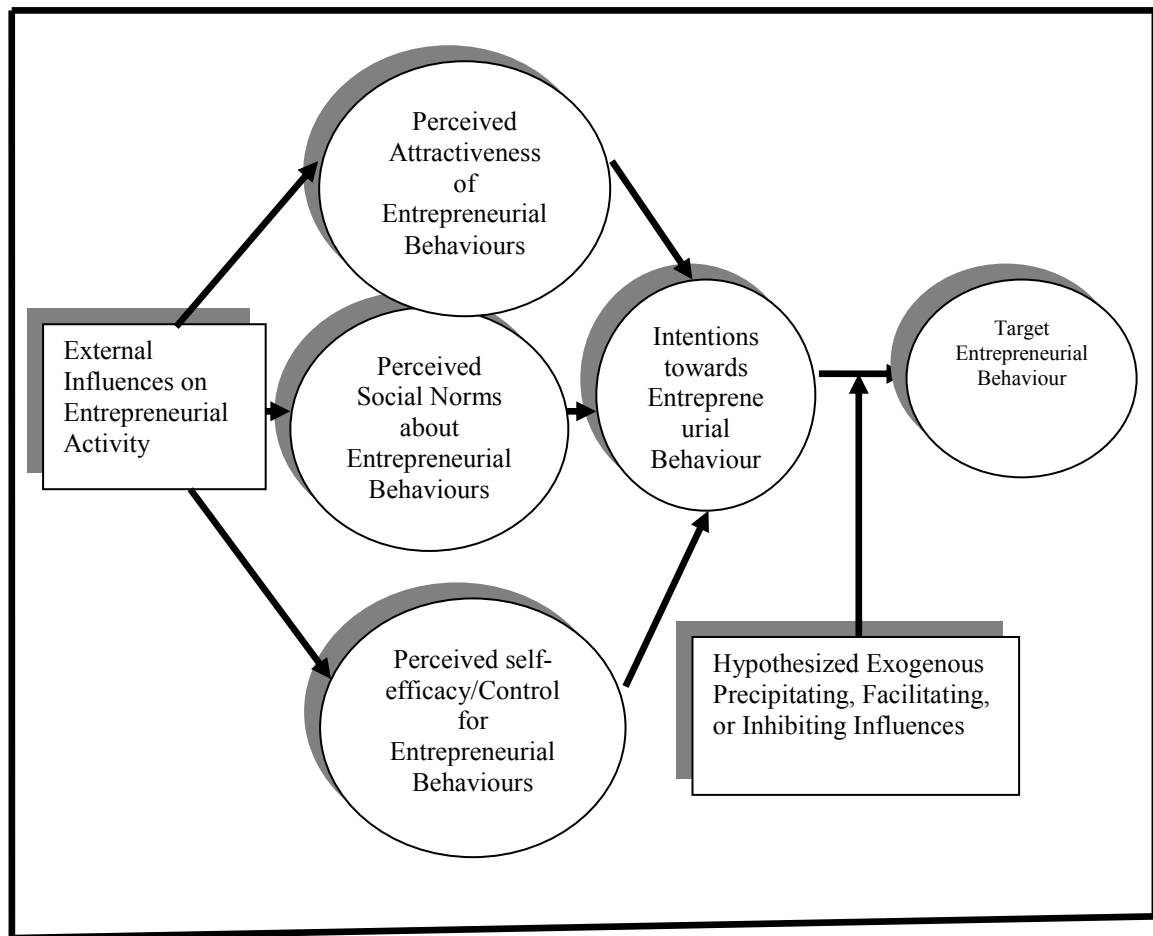
This paper is informed by the Theory of Planned Behaviour (TPB). TPB has been frequently used in studying entrepreneurial intention or the intention to start a business (Carr and Sequeira, 2007; Sahinidis and Vassiliou, 2013). The theory was propounded by Ajzen in 1988 and improved in 1991 (Ajzen, 1988; Ajzen, 1991). In his theory, Ajzen (1988) holds that attitudes towards behaviour are evaluated within the context of subjective norms and perceived behavioural control. With respect to perceived behavioural control, individuals assess their ability regarding the difficulty/ease in performing a given behaviour. This assessment is reflective of past experience and is based on perceptions about resource availability and anticipated obstacles (Carr and Sequeira, 2007). This theory assumes that human social behaviour is reasoned, controlled or planned in the sense that it takes into account the likely consequences of the considered behaviour (Ajzen and Fishbein, 2000; Fayolle *et al.*, 2006).

The underlying assumption of the theory is that behaviour is under volitional control and, therefore, the latter can predict the former (Ajzen, 2005; Krueger *et al.*, 2000). Ajzen (1991), proposed that the antecedents of intention, namely personal attraction to the behaviour, subjective norms and perceived behavioural control explain much of the variance in entrepreneurial intention (EI), which in turn explains a significant amount of behavioural variance. Personal attraction (PA) to entrepreneurship refers to the degree a person desires to follow an entrepreneur's career, or, in this paper, to the desirability of creating new business (Fini *et al.*, 2009). Perceived behavioural control (PBC) is the perception of how easy it is for a person to become an entrepreneur (Liñán and Chen,

2009) or to create new value (Fini *et al.*, 2009), a concept similar to self-efficacy and to perceived feasibility (Kruger *et al.*, 2000). The third antecedent of intention, the Social Norms and Valuations (SNV), is a basic element of the TPB, aiming to assess the impact of the social surroundings of an individual on his/her intention to start a business, although several researchers did not use it (Sahinidis and Vassiliou, 2013).

TPB is relevant in explaining barriers to business start-up because it remains open to the influence of exogenous factors that may play a role in the development of beliefs and attitudes (Fayolle *et al.*, 2006). It explains the relationship between behavioural intentions and actual behaviour of an individual. According to previous studies (Shambare, 2013; Ahmad and Xavier, 2012; Sandhu *et al.*, 2011; Yaghoubi, 2010; Taormina and Lao, 2007; Chowdhury, 2007; Aldrich, 2000), entrepreneurship is a function of internal psychological factors and external factors. The psychological factors and external factors reported by the researchers are aversion to risk, fear of failure, aversion to stress and hard work, lack of social networking, lack of resources, inadequate financial support, bureaucracy, inconsistency of government policies, lack of entrepreneurial education at tertiary level, inadequacy of entrepreneurial training, political instability, corruption, inadequate infrastructural facilities, lack of education and training and inadequate financial help. According to Fayolle *et al.* (2006), Krueger and Carsrud (1993) were the first to apply the TPB to the field of entrepreneurship by trying to make Ajzen (1991) model compatible with other theoretical frame-works, especially that of Shapero and Sokol (1982). Their final model is presented in Fig.4.1.





**Figure 4.1: Assessing Barriers to Business Start-up Intentions Using the Theory of Planned Behaviour**

**Sources:** *Krueger and Carsrud (1993); Fayolle et al. (2006).*

#### 4.5 Methodology

This study involved graduates from the University of Dar es Salaam. The University of Dar es Salaam was selected for this study because of its long standing training in entrepreneurship as compared to other universities in the country whereby entrepreneurship training is still at an infancy stage. A cross-sectional design was employed in gathering information, where a self-administered questionnaire and key informant interviews were applied in collecting data. A cross-sectional design was preferred because of limited resources such as finance and time available to pursue the research.

This design was preferred as it supported a variety of analytical techniques including quantitative and non-quantitative analyses. Questionnaire and key informant interviews were administered differently with questionnaire preceding the key informant interviews because the questionnaire was the main method of data collection and involved a large sample as compared to key informant interviews.

The University of Dar es Salaam Business School (UDBS), former Faculty of Commerce and Management (FCM); and the College of Arts and Social Sciences (CASS), former Faculty of Arts and Social Sciences (FASS) were purposively selected. The UDBS was included in this study because it was among schools where entrepreneurship courses had been mainstreamed into degree curricula whereas in the CASS the entrepreneurship courses had not been mainstreamed into degree curricula. The UDBS graduates formed the experimental group while the CASS graduates were the control group. To this end it was necessary to assess whether or not perceived barriers to business start-up differed among the two cohorts.

The sample involved respondents who had graduated from the academic year 2000/2001 to 2010/2011. The sample size was 308 graduates, out of whom 119 were selected among UDBS graduates and 189 were selected among CASS graduates. Among the respondents 27% were females while 73% were males. Most respondents (54.5%) were married while 42.5% lived single and 2.3% were widowed. A sample size is normally determined by three things, that is, the confidence level, the margin of error and the skewness level (Dodhia, 2007; Naing *et al.*, 2006). It was calculated using the Raosoft Sample Size Calculator (RSSC) which among other things determines confidence level, margin of error and skewness level. The sample size was considered adequate at 95% confidence interval, 5.5% margin of error and 50% skewness level.

It is important to note as well that this sample size represents 64.2% response rate, because 400 was the initial sample size but unfortunately, 92 respondents did not complete and return the questionnaire. In addition, 10 key informants were interviewed. In selecting the key informants first few experts working on the field of entrepreneurship were consulted to recommend the most informative, experienced, and analytical individuals. Then, informants who had been recommended by more than one expert were selected. This increased the likelihood that the informants would be useful for the study. In this regard, the key informants who had good knowledge on Tanzanian entrepreneurship development, education and unemployment issues were chosen. Out of the selected key informants, six were entrepreneurs and four were entrepreneurship experts (see Appendix 1). Information gathered through these interviews was used to triangulate the information obtained through questionnaire. The interviews were conducted using face-to-face technique whereby each interview took about one hour and was tape recorded.

Systematic random sampling (SRS) was used to get the required sample size. First, a list of graduates was obtained from the UDBS and CASS. Then, the sampling interval or the  $k^{\text{th}}$  element was determined in each list using the formula  $k = (\text{population size}/\text{sample size})$ . From the UDBS list the  $k^{\text{th}}$  element was obtained by dividing 2436 by 119 which is approximately equal to 20, and from the CASS it was obtained by dividing 6889 by 189 which produced 36. Thereafter, the first element from each list was randomly chosen from within the first to the  $k^{\text{th}}$  element, that is, from UDBS the first element was chosen among the first 19 elements and from CASS it was picked from among the first 35 elements. This was made possible by writing the serial numbers of the graduates (1 to 19 for UDBS and 1 to 35 for CASS) on a separate piece of paper and then folded. The folded papers were then mixed up and then one picked from each cluster. The remaining 306 (118 UDBS and 188 CASS) were picked systematically after each 20<sup>th</sup> and 36<sup>th</sup> elements respectively.

Graduates' contacts were obtained from the university alumni department. Sampled graduates whose contacts were missing in the alumni list were dropped out of the sample and the systematic random sampling was repeated. Fortunately, only 23 sampled graduates (9 from CASS and 14 from UDBS) had their contacts missing. Graduates were called before physically contacting them in order to ascertain their availability. Only graduates who were living within the country were involved in the study. The systematic random sampling was repeated in order to replace the sampled graduates who were not alive or were not living in the country at the time of this study. Luckily, none of them was deceased but seven of them (two from CASS and 5 from UDBS) were not living in the country.

The gathered quantitative data were analysed using the Structural Equation Modeling (SEM) whereby confirmatory factor analysis was performed using Analysis of Moment Structures (AMOS) and the Statistical Package for Social Sciences (SPSS) software. In order to consistently identify and measure barriers to entrepreneurship as experienced by university graduates, the authors drew insights from past research (Shambare, 2013; Ahmad and Xavier, 2012; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Sandhu *et al.*, 2011; Global Entrepreneurship Monitor, 2011; Yaghoubi, 2010). Out of these studies, Shambare (2013) barrier to entrepreneurship model was considered to be the most relevant in explaining the Tanzanian context under the study. For that reason, specified barriers described in the study were incorporated with those from Ahmad and Xavier (2012), Sandhu *et al.* (2011) and Yaghoubi (2010); from which a set of theoretical entrepreneurship barriers was developed (into a questionnaire for this study) and subsequently tested. The questionnaire consisted of three sections: namely section A, B and C. Of great importance to this paper is section B which presented questions on barriers to business start-up.

This section had 13 questions measuring the identified barriers (inappropriate teaching methods, lack of business experience, limited start - up capital, deficiencies in the university programmes, fear of failure, lack of government support and lack of social networking). The section also provided an opportunity of listing any other important factor (s) which respondents feel they were not captured by the questionnaire. In this regard, barriers such as bureaucratic tendencies, commitments on extended families, market constraints, risks associated with entrepreneurship and insufficient information on entrepreneurial opportunities were included in the model and tested. The instrument was tested for internal consistency using Cronbach's alpha ( $\alpha$ ) coefficient. A Cronbach's alpha of 0.670 was obtained indicating an acceptable reliability measure for the questionnaire. It was also prudent to test both content and face validity. The former was assured by means of a comprehensive literature review; the latter through consultative discussions with practising entrepreneurs and academics (Shambare, 2013).

Pearson's chi-square was used to test whether graduates who had not studied entrepreneurship and those who had studied entrepreneurship reported different start-up barriers. Qualitative data were analyzed using Ethnographic Content Analysis (ECA). ECA was used to supplement the quantitative analysis which was the main method. First qualitative information from key informant interviews was transcribed. From these transcriptions key themes, concepts or phrases related to barriers to business start-up were identified. Abbreviated codes such as few letters, words, or symbols were assigned to key themes such as experience, capital, government support, and start-up information. This helped to organize the data into common themes that emerged in response of dealing with specific items. These themes were later organized into coherent categories which summaries barriers to business start-up among graduates. Qualitative information was then integrated with the quantitative information to provide a meaningful conclusion.

However, the study had some limitations. First, the findings are based on self-reported responses of the respondent. Hence, there may be respondent's bias which might affect the reliability of the results. Second, the study did not consider cultural variations of graduates as they were scattered all over the country, and hence culture might have some influence on the way they had perceive entrepreneurship and a third reason could be the time lag effect. The sample consisted of graduates who had graduated in 2011 and those who had graduated ten years previously. The time lag might have affected the way graduates perceived entrepreneurship barriers. Besides, over the years after graduation one might have gained entrepreneurial skills. The impacts of self-reported responses and the time lag effect were minimized through triangulation of data whereby key informant interviews were used to verify data collected from respondents. To control the influence of culture, forced-choice items were applied. This technique generated questions that were equal in desirability to control responses in one direction or another. Regardless of these limitations this study is still important because, identifying business start-up barriers will inform policymakers in formulating actionable strategies and design appropriate policies to respond to the obstacles.

#### **4.6 Findings and Discussion**

The study found that 49.7% of all interviewed graduates had at one time tried to establish firms. Out of them 22.7% their firms were flourishing and 27% their firms were not flourishing. It is important to note as well that 22% of those who had studied entrepreneurship reported to have set up their own businesses and perceived that they were successful; compared to only 14.4% of those who had not studied entrepreneurship.

It was further found that graduates who had not studied entrepreneurship ranked: Commitment to extended families (77.8%), limited start - up capital (75.3%), risks

associated with entrepreneurship (65.3%), insufficient information on entrepreneurial opportunities (61.7%) and deficiencies in the university programmes (61.3%) as the five most inhibiting factors to business start-up. On the other hand, graduates who had studied entrepreneurship ranked: Lack of social networking (49.6%), lack of business experience (44.5%), market constraints (43.0%), lack of government support (42.3%) and bureaucratic tendencies (40.2%) as the most restraining factors (Table 4.1). Besides, results had a Pearson's chi-square of 63.231 at  $p < 0.05$  which suggests that there was statistically significant association between the status of entrepreneurship study and the reported start-up barriers. That is, graduates in the two cohorts reported different start-up barriers. These findings may be attributed to differences in type of training the graduates in the two clusters had. The majority of those who had studied entrepreneurship were practising entrepreneurs; they had accumulated experience which might have helped them view the barriers differently as compared to those who had not study entrepreneurship. However, the contribution of each factor was tested and is presented and discussed in detail in the following subsection.

**Table 4.1: Business start-up barriers as per status of entrepreneurship study**

Start-up barriers	Status of Entrepreneurship Study					
	Had not studied entrepreneurship		Had studied entrepreneurship		Row total	
	Count	Row n %	Count	Row n %	Count	Row n %
Commitments on extended families	161	77.8	106	22.2	207	100.0
Insufficient information on entrepreneurial opportunities	163	61.7	101	38.3	264	100.0
Deficiencies in the university programmes	155	61.3	98	38.7	253	100.0
Bureaucratic tendencies	150	59.8	101	40.2	251	100.0
Fear of failure	150	60.0	100	40.0	250	100.0
Lack of social networking	68	50.4	67	49.6	135	100.0
Risks associated with entrepreneurship	81	65.3	43	34.7	124	100.0
Lack of business experience	50	55.5	40	44.5	90	100.0
Market constraints	49	57.0	37	43.0	86	100.0
Limited start-up capital	64	75.3	21	24.7	85	100.0
Lack of government support	41	57.7	30	42.3	71	100.0
Inappropriate teaching methods	40	60.6	26	39.4	66	100.0
No barriers at all	10	71.4	4	28.6	14	100.0

**Note: 1.** The survey question leading to this analysis allowed multiple responses; hence, the total number of observations (count) exceeds the sample size. **2.** Barriers are arranged according to the total number of counts in each row: **2:** Pearson Chi-Square = 63.231; df=12 and p = 0.000

In order to best assess barriers that mostly discourage Tanzanian university graduates from engaging in entrepreneurial activities, the goodness of fit for the model was assessed first and produced the following model fit statistics: First, the RMSEA was recorded at 0.041 and PCLOSE at 0.659. Other statistics included the NFI (0.983); the RFI (0.980) and the IFI (0.987). Furthermore, the model had the TLI of 0.974; the CFI of 0.965; as well as CMIN of 381.154 and the CMIN/DF recorded at 0.958. All of these model fit measures were within the acceptable range indicating a good fit.

It was also found that out of the seven hypothesized factors six (inappropriate teaching methods, lack of business experience, limited start-up capital, deficiencies in the university programmes, lack of government support and lack of social networking) had greatest contribution in inhibiting business start-up. Their factor loadings ranged from -26.533 to -153.768.



The results were statistically significant at  $p < 0.05$ . Hence, the alternative hypotheses related to these six variables are confirmed. Other factors that were not hypothesized but found to be statistically significant at  $p < 0.05$  and had bigger contribution in restraining business start-up among graduates included: Commitment to extended families (-135.505); bureaucratic tendencies with loadings of -132.134; insufficient information on entrepreneurial opportunities (-42.023) as well as fear of risks associated with entrepreneurship (-5.326). Market constraints and the fear of failure had  $p > 0.05$ . Therefore, they were not statistically significant, implying they are not suitable in explaining business start-up among Tanzanian graduates. As a result, the null hypothesis related to the fear of failure factor is confirmed. The barriers presented in Table 4.2 are discussed in detail in the subsequent sub-sections (5.1-5.10).

**Table 4.2: Regression weights: (group number 1 - default model)**

Variable	Estimate	S.E.	C.R.	P-value
Inappropriate teaching methods	-153.768	47.443	-2.506	0.000
Lack of business experience	-147.725	10.805	-2.715	0.000
Deficiencies in the university programmes	-135.548	51.384	-2.638	0.008
Commitments on extended families	-135.505	51.368	-2.638	0.008
Bureaucratic tendencies	-132.134	50.108	-2.637	0.008
Lack of social networking	-84.605	15.470	-1.725	0.004
Limited start-up capital	-63.323	10.696	-2.311	0.003
Insufficient information on entrepreneurial opportunities	-42.023	18.501	-2.271	0.002
Lack of government support	-26.533	15.082	-1.759	0.007
Market constraints	-6.521	13.186	-0.607	0.588
Risks associated with entrepreneurship	-5.326	9.833	-0.542	0.009
Fear of failure	-1.243	10.864	-0.114	0.909

**1. Dependent variable:** Business start-up **2. Goodness of fit indices:** RMSEA = 0.041 & PCLOSE = 0.659; NFI = 0.983; RFI = 0.980; IFI = 0.987; TLI = 0.974; CFI = 0.965; CMIN = 381.154 & CMIN/DF = 0.958. **2.** Factors are arranged according to their number of estimate

#### 4.6.1 Inappropriate teaching methods

Inappropriate teaching methods were the most inhibiting factor with an estimate/loading of -153.768 and a C.R. of -2.506. The results were statistically significant at  $p < 0.05$ . This result suggests that, for every single attempt of applying inappropriate teaching methods,

business start-up among graduates in Tanzania is decreased by 154 units. It is well known that both teaching methods and the curricula content are an important component for the learning process to take place. Even if universities may have good course contents if the teaching methods are not improved the students will end up not getting the intended level of knowledge. Scholars such as Shambare (2013) argue that teaching methods determine students' level of engagement.

#### **4.6.2 Lack of business experience**

Experience is the key entry and success factor for entrepreneurship. Lack of business experience was the second most contributor to predicting business start-up with a factor loading of -147.725 and a C.R. of -2.715. The results were statistically significant at  $p < 0.05$ . The negative coefficient represents the negative association between lack of business experience and the intention of establishing a business firm; that is, when lack of business experience increases by one unit the chances of a graduate establishing a firm drops by 148 units. This is because the probability of establishing a firm is higher for those people with previous entrepreneurship experience than those without.

Interviewee 3 had the opinion that assisting parents or relatives in their businesses helped him a lot to gain and improve his business idea an opportunity which those without such experience missed extremely. Limited business experience was also cited by Rider *et al.* (2013) as being among major hindrances to starting a firm. It should be noted here as well that female graduates face extra challenges compared to those which are faced by both male and female graduates. According to Das (2001), apart from lack of related experience, women face more obstacles than men in their ambitions to become entrepreneurs. These include being accepted as a woman in business (for long time the role of women has traditionally been seen by both men and women amongst various

societies in developing countries, including Tanzania, to be that of wife and mother), lack of a role model, lack of professional interaction, difficulties in gaining the confidence of their clients and suppliers and lack of adequate training. How do the government and Universities boost the experience of University graduates remains a central puzzle to be solved.

#### **4.6.3 Deficiencies in the university programmes**

Another important factor was deficiencies in the university programmes with a factor loading recorded at -135.548 and a C.R. at -2.638. The results were statistically significant at  $p < 0.05$ . This result implies that for every one increase in the deficiencies in the university programmes the business start-up decreases by 136 units. The curricula are not comprehensive enough to prepare individual students to acquire practical entrepreneurial skills and knowledge. In an ideal situation it is expected that a business management student for example, upon graduation, should be sufficiently equipped with skills to draft a decent business plan. The reality though is that university graduates in Tanzania are not only ill-prepared for business start-up, they are often not even qualified enough for the labour market. The major challenge is the lack of education system in Tanzania to impart creativity among students. This is because it is too theoretical. Graduates themselves had the opinion that entrepreneurship ought to be taught practically. Students ought to learn on how people enter and grow into businesses. To do this, the education system must be field based.

The current system does not provide that opportunity. According to interviewee 1 (Appendix 7): “.....*There is no favourable environment for a young graduate to engage in entrepreneurship because our education system for long time has been bookish; it does not impart creativity among students....*” On the same issue interviewee 9 had the views

that: “.....*Education in Tanzania ought to be competency based. Universities must start teaching students how people enter and grow in businesses, and education must be field and practical based; at the moment this is not the case....*” Furthermore, interviewee 7 (Appendix 7) highlighted that there are two types of competencies which ought to be taught concurrently at the university, namely: the domain specific competence and the domain general skills.

It is argued that these two types of competence are provided for in the curricula but the universities keep on emphasizing the domain specific competence mostly because lecturers in most universities are not well motivated and time set for students to undertake field practical assignments is very much limited, leave alone time for apprenticeship that is not considered all together. Consequently, most university graduates nowadays have strong domain specific competence but lack domain general skills such as critical thinking skills, self-confidence, self-evaluation, foreign language skills (such as English); rhetoric as well as the written and oral exposition skills.

#### **4.6.4 Commitments to extended families**

It was also found that commitments to extended families contribute in predicting business start-up among graduates with a factor loading of -135.505 and a C.R. of -2.638. The results were statistically significant at  $p < 0.05$ , implying that when extended families increase by one unit the business start-up decreases by 136 units. In the Tanzanian context the extended family consists of two or more nuclear families in which the resources of its members are pooled for consumption. Satisfying an extended family's requirements is a costly responsibility; in most cases individuals end up consuming the whole earned income. With limited savings one can barely establish a firm. It is important to note here that security against economic loss resulting from sickness, accidents, death, old age,

poverty, and unemployment is valued highly by most societies. The findings support those of Dana (2007) who found that kinship relations in Africa are an obstacle to organizational efficiency and capital accumulation. This applies more so to new graduates who are just entering the labour market with low incomes and multiple obligations. Regarding commitments on extended families interviewee 10 (Appendix 7) had this to say, “...sometimes request from relatives surpass my monthly salary...”

In many societies, extended families perform various important functions. Often, the extended family network is the first line of defense in times of misfortune. It is a source of financial, emotional and physical security against various difficulties. The strong family network system or kinship network is not only common to African societies, but has also played a role in other societies in Asia and Latin America. The major difference between the extended family system in Africa and other parts of the world is that in Africa the extended family network is one of the main coping mechanisms whereby there is a lack of an institutionalized social security system. The social security, provident funds, old age pensions, life and unemployment insurance, accident and medical insurance as well as welfare programmes instituted by government and the private sector are not well developed in most African countries (Tanzania inclusive) to safeguard the welfare of all citizens. As a result, this function is to a larger extent supplied by the institution of the extended family. In Asia for example, the extended families has been used as networks to support entrepreneurial activities (see, Jack, 2005, Ramu, 2013). The extended family system of Tanzanians with Indian origin also seems to support this argument.

#### **4.6.5 Bureaucratic tendencies**

The bureaucratic tendencies also received a considerable attention with a factor estimate of -132.134 and a C. R. of -2.637 and were statistically significant at  $p < 0.05$ . The result

implies that for each increase in bureaucratic tendencies by one unit, the likelihood of a graduate to establish a business drops by 132 units. This is because there are so many issues to be resolved before one establishes as firm. A prospective entrepreneur, for example, has to acquire land or business premises, register his/her business and get the permits. All these activities take longer and do require resources in terms of time and cash.

Worse enough, many of the laws and regulations affecting businesses in Tanzania (including licensing procedures) were designed for relatively large businesses and are therefore beyond the reach of most Micro and Small Enterprises (MSEs), which can be created by most graduates. Corruption and bureaucratic tendencies make matters worse, especially for women who do not have the same opportunities as men to meet and negotiate with predominantly male dominated public officials. These findings on bureaucratic tendencies support that of UDEC (2002) and Mfaume and Leonard (2004). Referring to bureaucratic tendencies interviewee 5 (Appendix 7) remarked: *“....yes, we want to start our businesses but where do we start? How do we start? It is amazing after all efforts done by the government in making business environment attractive to business people, getting your business started in Tanzania is still complex even for people who are working in Ministries; it takes more time and resources. For a newly graduated individual it is even more tiresome. For example, applying for clearance of the proposed company name at the Business Registration and Licensing Authority (BRELA) is supposed to be one business day but experience shows it takes more than that. Applying for company incorporation and obtain the certificate of incorporation is supposed to take four business days but it goes beyond that. At the same time you are required to pay TZS 236 200 (about 150 US\$); how many jobless graduates can pay? Some do not have even TZS 1000 to pay for job application mailing stamp or buy a newspaper....”*

#### **4.6.6 Lack of social networking**

Lack of social networking was among important predictors of business start-up with an estimate of -84.605 and a C.R. value of -1.725. The results were statistically significant at  $p < 0.05$ , suggesting that knowing an entrepreneur personally was a significant predictor of entrepreneurial participation. In an ideal situation, social networks are the starting point to gain business networks. However, the Tanzanian situation is different; in most cases university graduates do share information related to new job vacancies and not entrepreneurial opportunities. The reason for this is that most graduates often come from very poor backgrounds and at the time of graduation most of them do not have enough resources to facilitate their transition into entrepreneurship. Even the few graduates who have entrepreneurial ambitions, require enough resources such as start-up capital (which in most cases is not readily available) to be able to fulfil their ambitions. Therefore, paid employment is seen by graduates as a good starting point and the right option for gaining start-up capital. The findings support that of Oke (2013).

#### **4.6.7 Limited start-up capital**

Limited start-up capital was reported among the most serious barriers to business start-up in the country today with a regression estimate of -63.323 and a C.R. of -2.311. The results were statistically significant at  $p < 0.05$ . Since the start of trade liberalization in Tanzania 1990s, the financial sector has made a tremendous improvement in terms of number of financial institutions and their reach. Most graduates interviewed reported several sources of initial capital in the country which include: Micro-financing Institutions such as SACCOS, Pride, FINCA, BRAC, and others. There are many banks in Tanzania competing for customers today than any other time in this country. They include commercial banks such as CRDB Bank PLC, National Microfinance Bank, National Bank of Commerce, Exim Bank, Access Bank, Bank of Africa, Kenya Commercial Bank, Barclays, to name just a few.

Others include community banks such as Mwanga Community Bank, Mbinga Community Bank and Dar es Salaam Community Bank. According to interviewees 6 and 8, what is seriously lacking in the financial sector today is an institutionalized government support which will ensure that graduates access credits without many difficulties. One of the difficulties which the government ought to eliminate is the lack of collateral problem which is in most cases attached by financial institutions as among lending conditions. The findings support that of Anuar *et al.* (2013).

#### **4.6.8 Insufficient information on entrepreneurial opportunities**

The insufficient information on entrepreneurial opportunities and the available institutions was perceived by graduates in Tanzania as being among the serious obstruction to starting a firm in the country. This barrier had a factor loading of -42.023 and the C.R. was recorded at -2.271. The results were statistically significant at  $p < 0.05$ . The negative coefficient signifies that insufficient information on entrepreneurial opportunities negatively impacts the ambitions to start a business. Graduates who are potential entrepreneurs require enough information about the role, services and mission of the institutions that give support to enterprise creation, which in most cases do not happen in Tanzania. This paper argues that “information is power”; those with access to information are more likely to engage in entrepreneurial ventures than those without.

When asked about this, interviewee 2 had this to say: “.....*Most of us have good intentions; we want to establish our own businesses, but there is nowhere we can get information about acquiring initial capital, taxation, business premises renting, registering a business, and many more. A one stop centre for such information in each region is required. Newly graduated individuals have little cash and cannot travel to Dar es Salaam to get such information. Even those who graduated from Universities and Colleges located in Dar es Salaam only few can afford to pay for a daily bus fare in*



*search for information. TAESA coordinates information on formal employment; we need a similar agency on self-employment, probably with branches in major towns and cities of Tanzania”....* These findings support that of Schoof (2006) who observed that lack of career information and business possibilities is in most cases a barricade to business creation.

#### **4.6.9 Lack of government support**

Most graduates involved in the study believe that the government system is not so helpful because of lack of political will. This factor was tested and produced an estimate of -42.023 and a C.R. of -2.271. The results were statistically significant at  $p < 0.05$ . This means that lack of support from policy makers in the country is an inhibiting factor towards establishing firms. This paper establishes that there is no motivating political will to support graduates in Tanzania regardless of many policies purported to support them. This is because the process of entry into entrepreneurship is not well known and not coordinated. For instance, the government has not regulated the lending policies of the financial institutions so that their loans are easily accessed by poor people including newly graduated individuals.

There is no think tank to address the issue of mind set within the government. It is clear that the government has a vital role to play in facilitating and encouraging entrepreneurial development among graduates, not only setting up policies that are not enforced. Because business development is not a single stage process, government incentive programmes need to recognize the young graduates who wish to become entrepreneurs in the future. For example, government can help entrepreneurs establish networks of relevant contacts and gain insight into how to access funds. There is a need for the relevant government ministry to have a permanent and well placed desk, to deal with graduates who aspire to

become entrepreneurs. In so doing the government will prepare fresh graduates psychologically and culturally, to take entrepreneurship as a topical option in employment today. The findings are in line with that of Schoof (2006).

#### **4.6.10 Risks associated with entrepreneurship**

Another important determinant of business start-up was the fear of risks associated with entrepreneurship which recorded a factor loading of -5.326 and a C.R. of -0.542. The results were statistically significant at  $p < 0.05$  suggesting that when fear of risks associated with entrepreneurship increase by one unit the likelihood of a graduate to establish a firm decreases by 5 units. This factor was also alluded to by many key informants as a limiting factor to business start-up in Tanzania. This paper establishes that many graduates fear to venture into entrepreneurship because of the associated risks and instead they are attracted to formal employment which is less paying but less risky. In Tanzania today it is easier to get a job than starting a profitable firm. This paper argues that as number of wage employments get fewer and fewer most graduates will be forced into entrepreneurship. Concerning risks associated with self-employment, interviewee 4 had this to comment: “....*as employment opportunities get fewer and fewer we will see many graduates engaging themselves in entrepreneurial activities, because if one does not get employment what shall he/she be doing?....*”

#### **4.6.11 Conclusion and Recommendations**

The paper concludes that smaller number of business start-ups among university graduates in Tanzania cannot be attributed to the limited start-up capital only; several interplaying factors are responsible for it. The most inhibiting factors are: inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitments to extended families and bureaucratic tendencies in the government system.

Other contributing hurdles include: Lack of social networking, limited start-up capital, insufficient information on entrepreneurial opportunities, lack of government support as well as fear of risks associated with entrepreneurship. Market constraints and the fear of failure were not important predictors of business start-up. The study further concludes that entrepreneurship study influenced the way graduates perceived the barriers; as it was observed that graduates who studied entrepreneurship had reported different start-up barriers from those reported by their counterparts.

Unless all these barriers are adequately and holistically addressed by the responsible authorities, very few graduates will continue opting for entrepreneurship. To achieve this, universities and the government must ensure that graduates get the support they require to put their business plans and ideas into action. In that regard, the following recommendations are put forward:

To promote entrepreneurship in higher learning, universities should employ teaching methods that allow both practical application of the learnt material as well as holistic development of skill-sets required. In the context of entrepreneurship, this relates to teaching both theoretical and practical aspects of businesses. Efficient teaching methods go beyond reciting formulae in text books; they empower students to develop free and creative thinking in the application of knowledge and theory in the real world.

Concerning insufficient information on entrepreneurial opportunities, the government has a role to play. The government should establish a one stop information centre which will provide all information related to business start-up to prospective entrepreneurs including new university graduates. The government may do two things to facilitate this; one, it can expand the current Tanzania Employment Services Agency (TAESA) to include a

department within TAESA which will be dealing with offering information on how to start and grow into businesses. Two, the government may wish to establish a new and independent information bureau which will be mandated to collect, store and disseminate information to prospective entrepreneurs. The bureau can also be mandated to train and offer entrepreneurial advice to new graduates who wish to become entrepreneurs in future. Establishment of branch offices in various regions of Tanzania or having career development and information exchange offices or desks in each higher learning institution can also help in this respect.

To solve the lack of business experience impediment universities and other higher learning institutions in the country should adopt apprenticeship and field attachment approach. Students may be sorted into two groups, one group to include students who wish to become employees and another group of students who aspire to be entrepreneurs. The first group may be subjected to class lectures and fewer fields practical while the potential entrepreneurs' group must be subjected to more field practical and less lectures. To gain enough experience, it is recommended that a student should be attached to a practising entrepreneur, stay and work at the firm for not less than one year. Other approaches include invitation of guest speakers.

Universities should emphasize in bringing in successful entrepreneurs who will speak to students on how they started their businesses, explain to students how an individual enters and grows in businesses. By speaking with successful entrepreneurs and asking them to elaborate on their failures, as well as their successes, university students shall gain self-efficacy as well as business experience and slowly eliminate fear. Students should also ask them to recall their mindset early in their careers and why they made various decisions which eventually resulted in their success. In most cases, they will find that although

entrepreneurs made numerous mistakes along the way, they learned from each misstep and quickly adapted to the ramifications of their decisions. The government should seriously consider the introduction of a graduate internship scheme similar to that of medical students to ensure greater opportunities for graduates to get business experience and build on their skills, as well as assisting them to secure long-term employment.

Regarding deficiencies in the university programmes, this paper recommends that, higher learning institutions in Tanzania need to revise their curricula particularly on entrepreneurship and related courses. Education needs to be competency based. Institutions must teach students to think and be innovative and creative. To do this two things may be done, one; all universities ought to have a common vision on what type of nation they want to build and what type of graduates will fit into the country agenda. As a country we need to have a single agenda or philosophy on education. The agenda should be to produce graduates who are self-confident, entrepreneurially motivated, critical thinkers and development seekers. The Tanzania Commission for Universities (TCU) can help on this by providing guidance and coordination. Moreover, students ought to be involved in setting educational objectives particularly when designing entrepreneurship and related curricula.

The government should address the challenge of limited start-up capital among graduates. Government's role is to stimulate that funding ecosystem and provide comprehensive support within this very complex space. One way of the government to help is by putting in place appropriate regulatory frameworks that can enable innovative funding mechanisms, such as "crowd-funding", to flourish. It is proposed that the government should establish a "special fund" which will offer soft loans to prospective graduates with limited conditions. A bureau similar to the current Higher Education Students' Loans

Board is recommended. Crowd-funding is a way of attracting small amounts of funding or donations directly from multiple investors using fund raising strategies such as evening dinners. Beyond facilitating the funding itself, governments have an important role to play in helping entrepreneurs establish networks of relevant contacts and gain insight into how to access funds.

#### 4.7 References

- Ahmad, Z. S., and Xavier, S. R. (2012). Entrepreneurial environments and growth: evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship* 1: 50 – 69.
- Ajzen, I. (1988). *Attitudes, Personality and Behaviour*. Dorsey Press, Chicago. 175pp.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes* 50 (2): 179–211.
- Ajzen, I. (2005). *Attitudes, Personality, and Behaviour (2nd Ed.)*. Milton-Keynes, England: Open University Press, McGraw-Hill. 192pp.
- Ajzen, I. and Fishbein, M. (2000). Attitudes and the attitude-behaviour relations: Reasoned and automatic processes. *European Review of Social Psychology* 1: 1-33.
- Aldrich, H. E. (2000). *Organizations Evolving*. Sage Publications, Thousand Oaks. 367pp.
- Ali, I., Tajddini, K., Rehman, K., Ali, J. F., and Ahmed, I. (2010). University students' inclination of governance and its effects on entrepreneurial intentions: An empirical analysis. *International Journal of Trade, Economics and Finance* 1(1): 36-39.

- Anuar, A., Nasir, I. N. M., Rahman, F. A. and Sadek, D. M. (2013). Barriers to start-up the business among students at tertiary level: A case study in northern states of peninsular Malaysia. *Asian Social Science* 9 (11): 290-299.
- Asoni, A. (2011). *Intelligence, self-confidence and entrepreneurship*. [<http://www.ifn.se/wfiles/wp/wp887.pdf>] site visited on 27/12/2013.
- Atieno, R. (2009). Linkages, access to finance and the performance of small-scale enterprises in Kenya. *Journal of Accounting and Business Research* 3 (1): 33-48.
- Baena, V. (2012). Market conditions driving international franchising in emerging markets. *International Journal of Emerging Markets* 7 (1): 49 – 71.
- Carr, J. C. and Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behaviour approach. *Journal of Business Research* 60: 1090 –1098.
- Charney, A. and Libecap, G. D. (2000). *The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985- 1999*. Report to the Kauffman Centre for Entrepreneurial Leadership, Kansas City, Missouri. 10pp.
- Chigunta, F. (2002). *Youth Entrepreneurship: Meeting the Key Policy Challenges*. Wolfson College, Oxford University, Oxford. 256pp.



- Chowdhury, M. (2007). Overcoming entrepreneurship development constraints: The case of Bangladesh. *Journal of Enterprising Communities: People and Places in the Global Economy* 1(3): 240 -251.
- Dana, L. P. (2007). *International Handbook of Research on Indigenous Entrepreneurship*. Edward Elgar Publishing, Cheltenham. 634pp.
- Das, M. (2001). Women entrepreneurs from India: Problems, motivations and success factors. *Journal of Small Business and Entrepreneurship* 15 (4): 67.84.
- Deloitte (2013). East Africa budget, growing steady economic outlook 2013. [<https://www.deloitte.com/assets/DcomKenya/Local%20Assets/Documents/Budget%202013/EconomicOutlook2013.pdf>] site visited on 30/06/2014.
- Dodhia, R. M. (2007). Sample size calculations. [[http://www.ravenanalytics.com/Articles/Sample\\_Size\\_Calculations.htm](http://www.ravenanalytics.com/Articles/Sample_Size_Calculations.htm)] site visited on 20/7/2012.
- Ebewo, P. E. and Shambare, R. (2012). The reason business plans of start-up ventures are rejected by South African financiers. [[www.imraweb.org/imra2012cpb.pdf](http://www.imraweb.org/imra2012cpb.pdf)] site visited on 11/04/2014.
- EEC-European Entrepreneurship Cooperation (2004). Barriers to entrepreneurship and business creation. [<http://www.adrimag.com.pt/downloads/cooperacao/barriers%20entrepreneurship%20and%20business%20creation.pdf>] site visited on 14/01/2014.

- European Commission (2008). Best procedure project: Entrepreneurship in higher education, especially in non-business studies. [[ec.europa.eu/enterprise/policies/sme/files/support.../entr\\_highed\\_en.pdf](http://ec.europa.eu/enterprise/policies/sme/files/support.../entr_highed_en.pdf)] site visited on 12/03/2014.
- Fatoki, O. and Chindoga, L. (2011). An investigation into the obstacles to youth entrepreneurship in South Africa. *International Business Research* 4 (2): 161-169.
- Fayolle, A., Gailly, B. and Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training* 30 (9): 701-720.
- Fielden, S. L., Davidson, M. J. and Makin, P. J. (2000). Barriers encountered during micro and small business start-up in north-west England. *Journal of Small Business and Enterprise Development* 7 (4): 295 – 304.
- Fini R., Grimaldi, R., Marzocchi G. L. and Sobrero M., (2009). The foundation of entrepreneurial intention. [[www.imperial.ac.uk/people/r.fini/research.html](http://www.imperial.ac.uk/people/r.fini/research.html)] site visited on 11/01/1012.
- Global Entrepreneurship Monitor. (2011). Global entrepreneurial monitor: South Africa 2011, GEM [ <http://www.gemconsortium.org/report>] site visited on 11/01/1014.
- ILO - The International Labour Organization of the United Nations (2012). Concept note presented at the entrepreneurship education planning retreat at Morogoro hotel 15 – 18 August 2012 [<http://www.ilo.org/public/english/region/afpro/daressalaam/download/eduretmoro.pdf>] site visited on 11/01/1014.

Jack, S. L. (2005). The role of family in entrepreneurship: A qualitative study.  
[[www.abdn.ac.uk/business](http://www.abdn.ac.uk/business)] site visited on 27/12/2013.

Katundu, M. A. and Gabagambi, D. M. (2014). Entrepreneurial tendencies of Tanzanian university graduates: Evidence from university of Dar es Salaam, *European Academic Research* 1 (12): 5525-5558.

Kirkwood, J. (2009). Is a lack of self-confidence hindering women entrepreneurs?  
*International Journal of Sex and Entrepreneurship* 1 (2): 118 – 133

Kreiser, P. M., Marino, L. and Weaver, K. M. (2001). Correlates of entrepreneurship: The impact of national culture on risk-taking and proactiveness in SMEs.  
[[http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.197.5660 &rep = rep1&type=pdf](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.197.5660&rep=rep1&type=pdf)] site visited on 4/01/2014.

Krueger, N. F. and Carsrud, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship and Regional Development* 5: 315-330.

Krueger, N. F., Reilly, M. D. and Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing* 15 (5–6): 411–432.

Kubegeya, M. (2010). Tanzania: Catching graduates young to run their own business.  
[<http://allafrica.com/stories/201012280668.html>] site visited on 02/03/2014.

- Kusi, A. E. (2010). Planning entrepreneurship – a viable option for the 21st century graduate. A Thesis Submitted to the Laurea University of Applied Sciences in Partial Fulfilment of the Master Degree in Business Management, Laurea University of Applied Sciences, Uusimaa, Finland. 71pp.
- Kwong, C., Brooksbank, D. and Jones-Evans, D. (2007). The state of graduate entrepreneurship in the UK: Preliminary policy paper based on GEM 2005 data. [eprints.hud.ac.uk/11737/1/E%2BT\_Paper\_Smith\_and\_Beasley\_V2.docx] site visited on 02/06/2013.
- Lee, S. M., Chang, D. and Lim, S. B. (2005). Impact of entrepreneurship education: A comparative study of the U.S. and Korea. *International Entrepreneurship and Management Journal* 1: 27–43.
- Liñán, F. and Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice* 33 (3): 593-617.
- Lingelbach, D., de la Vina, L. and Asel, P. (2005). What's distinctive about growth-oriented entrepreneurship in developing countries? [http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=742605] site visited on 04/09/2012.
- Maas, G., and Herrington, M. (2006). The global entrepreneurship monitor (GEM) South African report [http://budgetspeechcompetition.co.za] site visited on 04/09/2014.

- Mai, Y. and Gan, Z. (2007). Entrepreneurial opportunities, capacities and entrepreneurial environments: Evidence from Chinese GEM data. *Chinese Management Studies* 1 (4): 216 – 224.
- Makgosa, R. and Ongori, H. (2012). Perceptions of entrepreneurial behaviour in Botswana. *International Journal of Learning & Development* 2 (3): 247-259.
- Mcha, M. Ch. (2012). Addressing employment challenges in Tanzania: Strategic policy options and actions by stakeholders. [<http://clknet.or.tz/wp-content/uploads/2012/02/Presentation-Addressing-Employment-Challenges-3.pdf>] site visited on 23/02/2014.
- Mfaume, R. M and Leonard, W. (2004). Small business entrepreneurship in Dar- es salaam –Tanzania: exploring problems and prospects for future development. [<http://www.caitanzania.org/entrepreneurship.pdf>] site visited on 27/12/2013.
- Mian, S. A. and Qureshi, S. M. (2010). The global entrepreneurship monitor (GEM) Pakistan report. [<http://www.gemconsortium.org/docs/download/770>] site visited on 04/09/2014.
- Mollentz, J. (2002). Creating conducive policy environment for employment creation in SMEs in South Africa. [<http://www.unido.org/>] site visited on 03/09/2014.
- Mwasalwiba, E., Dahles, H. and Wakkee, I. (2012). Graduate entrepreneurship in Tanzania: Contextual enablers and hindrances. *European Journal of Scientific Research* 76 (3): 386-402.

- Nabi, G. and Holden, R. (2008). Graduate entrepreneurship: Intentions, education and training. *Education & Training* 50 (7): 545-551.
- Naing, L., Winn, T. and Rusli, B. N. (2006). Practical issues in calculating the sample size for prevalence studies. *Archives of Orofacial Sciences* 1: 9-14.
- Oke, D. F. (2013). The effect of social network on women entrepreneurs in Nigeria: a case study of Ado- Ekiti small scale enterprise. *International Journal of Education and Research* 1 (11): 1-14.
- Olomi, D. R. and Sabokwigina, D. (2010). Entrepreneurship education in Tanzanian business schools: A nationwide survey. [[https://www.academia.edu/5333702/Title\\_entrepreneurship\\_education\\_in\\_tanzanian\\_business\\_schools\\_a\\_nationwide\\_survey](https://www.academia.edu/5333702/Title_entrepreneurship_education_in_tanzanian_business_schools_a_nationwide_survey)] site visited on 9/9/2013.
- Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. *Entrepreneurship Theory and Practice* 28 (2): 129 -144.
- Policy Forum (2007). Growth in Tanzania: Is it reducing poverty? [[http://www.twaweza.org/uploads/files/Groth%20in%20Tanzania\\_Policy%20Forum.pdf](http://www.twaweza.org/uploads/files/Groth%20in%20Tanzania_Policy%20Forum.pdf)] site visited on 14/01/2014.
- Prachowny, M. F. J. (2002). *The Goals of Macroeconomic Policy*. Routledge, New York. 232pp.

- Pré, R. D. (2009). The place and role of universities of technology in South Africa. [[http://www.satn.co.za/pdf/UoT%20Book%202009%20Final%20Edited%20Version%20A5%2026%20Mar%202009%20\(2\).pdf](http://www.satn.co.za/pdf/UoT%20Book%202009%20Final%20Edited%20Version%20A5%2026%20Mar%202009%20(2).pdf)] site visited on 11/03/2014.
- Pretorius, M., and Shaw, G. (2004). Business plan in bank-decision making when financing new ventures in South Africa. *South African Journal of Economics and Management Science* 7 (2): 221-242.
- Ramu, G. N. (2013). Family structure and entrepreneurship: An Indian case. *Journal of Comparative Family Studies* 4 (2): 239-256.
- Rider, C. I., Thompson, P., Kacperczyk, A. & Tag, J. (2013). Experience and entrepreneurship.[<http://ssrn.com/abstract=2307002>] site visited on 28/12/2013.
- Rweyemamu, A. (2013). Unemployment: youth hit hard. [[http:// www. ippmedia. com/ frontend/? l=50537](http://www.ippmedia.com/frontend/?l=50537)] site visited on 30/06/2014.
- Sahinidis, A. G. and Vassiliou, E. E. (2013). Intention to start a new business using the theory of planned behaviour to predict the starting of a new venture by entrepreneurs and self-employed individuals. *Quantitative and Qualitative Methodologies in the Economics and Administrative Sciences* 1: 324-332.
- Sandhu, M. S., Sidique, S. F. and Riaz, S. (2011). Entrepreneurship barriers and entrepreneurial inclination among Malaysian postgraduate students. *International Journal of Entrepreneurial Behaviour & Research* 17 (4): 428 – 449.

- Schoof, U. (2006). Stimulating Youth Entrepreneurship: Barriers and Incentives to Enterprise Start-ups by Young People. ILO, Geneva. [[http://www.ilo.org/youthmakingithappen /PDF/ WP76-2006-Rev.pdf](http://www.ilo.org/youthmakingithappen/PDF/WP76-2006-Rev.pdf)] site visited on 14/01/2014.
- Schröder, E. (2005): *Berufliche Selbständigkeit als Ziel ?!: Entwicklung und Evaluation eines "Life-Skills"-basierten Trainingsprogramms für Jugendliche*. [[www.db-thueringen.de/servlets/DocumentServlet?id=2817](http://www.db-thueringen.de/servlets/DocumentServlet?id=2817)] site visited on 12/01/2012.
- Shambare, R. (2013). Barriers to student entrepreneurship in South Africa. *Journal of Economics and Behavioural Studies* 5 (7): 449-459.
- Shapero, A. and Sokol, L. (1982). The Social Dimensions of Entrepreneurship. *The Encyclopedia of Entrepreneurship 1*: 72-90.
- Smith, K. and Beasley, M. (2011). Graduate entrepreneurs: Intentions, barriers and solutions. *Education & Training* 53 (8/9): 722-740.
- Taormina, R.J. and Lao, S. K.-M. (2007). Measuring Chinese entrepreneurial motivation, personality and environmental influences. *International Journal of Entrepreneurial Behaviour & Research* 13 (4): 200-21.
- Tayari, E. D. (2010). Transforming tanzanian economy by imparting entrepreneurial spirit to its people. [[http://www.vijana.fm/2010/09/24/ transforming-tanzanian-economy-by-imparting-entrepreneurial-spirit-to-its-people/](http://www.vijana.fm/2010/09/24/transforming-tanzanian-economy-by-imparting-entrepreneurial-spirit-to-its-people/)] site visited on 3/8/2013.



Timmons, J. A. (1999). *New Venture Creation: Entrepreneurship for 21st Century*, 5<sup>th</sup> ed., McGraw-Hill, Boston. 612pp.

UDEC - University of Dar es Salaam Entrepreneurship Centre (2002). *Jobs, Sex and Small Enterprises in Africa*. ILO Office, Dar es Salaam. 49pp.

United Republic of Tanzania – URT (2011). The Tanzania National Bureau of Statistics. Unemployment estimates for the year 2011, [[http:// www. nbs. go. tz/index.php?option =com\\_ content & view =article&id =186: unemployment-estimates-for-the-year-2011 & catid=100: employment-and-earnings & Itemid=135](http://www.nbs.go.tz/index.php?option=com_content&view=article&id=186:unemployment-estimates-for-the-year-2011&catid=100:employment-and-earnings&Itemid=135)] site visited on 23/02/2014.

URT (2010). United Republic of Tanzania National Strategy for Growth and Reduction of Poverty II (NSGRP II). Ministry of Finance and Economic Affairs, Dar es Salaam. [[http://www.acdi-cida.gc.ca/inet/images.nsf/vluimages/tanzania/\\$file/national-strategy-for-growth-and-reduction-of-poverty-tanzania.pdf](http://www.acdi-cida.gc.ca/inet/images.nsf/vluimages/tanzania/$file/national-strategy-for-growth-and-reduction-of-poverty-tanzania.pdf)] site visited on 30/06/2014.

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.

Wilson. F; Kickul, J.; and Marlino, D. (2007). Sex, entrepreneurial self-efficacy, and entrepreneurial career intentions: implications for entrepreneurship education. *Entrepreneurship Theory and Practice* 1: 387-406.

Yaghoubi, J. (2010). Study barriers to entrepreneurship promotion in agriculture higher education. *Procedia Social and Behavioural Sciences* 2: 1901-1905.

## CHAPTER FIVE

### **5.0 DEMOGRAPHIC DETERMINANTS OF TANZANIAN GRADUATES' ENTREPRENEURIAL ENTRY INTENTIONS: THE CASE OF UNIVERSITY OF DAR ES SALAAM**

Mangasini Atanasi Katundu<sup>1</sup> and Damian Mulokozi Gabagambi<sup>2</sup>

<sup>1</sup>Department of Community and Rural Development, Moshi Co-operative University, P.O.

Box 474, Moshi -Tanzania

(Corresponding author: [mangasini.katundu@mocu.ac.tz](mailto:mangasini.katundu@mocu.ac.tz) )

<sup>2</sup>Department Department of Agricultural Economics and Agribusiness Sokoine

University of Agriculture, P. O. BOX 3007, Morogoro - Tanzania. Email:

[gabagambi@suanet.ac.tz](mailto:gabagambi@suanet.ac.tz)

## 5.0 Abstract

This paper identifies the demographic determinants of entrepreneurial entry decisions amongst Tanzanian graduates. A cross-sectional design was used in gathering information, whereby a structured questionnaire was applied. Systematic random sampling was employed to get the required sample size. Cross-tabulation was used to compare descriptively entrepreneurial entry intentions between graduates who had studied entrepreneurship and those who had not studied entrepreneurship. Binary logistic regression analysis was applied to assess the impact of demographic factors on entrepreneurial entry. It was found that graduates' sex, age, birth order position and marital status significantly contributed to predicting graduates' entrepreneurial entry decisions. It was further found that marital status had greatest contribution than the other three significant factors, implying that married graduates had the stronger aspiration of becoming entrepreneurs than singles. The results were statistically significant at  $p < 0.05$ . Organizations intending to make any intervention on graduate entrepreneurship in Tanzania are urged to focus on married graduates. A study on joint venture creation among graduates is required. Researchers should focus on the contribution of joint ventures in counterbalancing negative effects of age differences as well as the harmful effects of birth order positions due to their inborn or upbringings weaknesses.

**Key words:** *age, marital status, birth order position, entrepreneurial intention, graduates, Tanzania.*

## 5.1 Introduction

Entrepreneurial entry is an important contributor to new venture creation which leads to increased productivity, intensified market competition, improved economic growth and reduced unemployment in an economy. Unemployment is a serious developmental problem in Tanzania, especially among graduates. Unemployment in the country is accelerated by the imbalance between the supply and demand of labour in the labour market, increasing of urban employment pressures with outflow of rural surplus labour to non-agricultural sectors and increased number of new entrants in the labour market.

For example, Mcha (2012) estimates new entrants into the labour market each year from colleges and universities countrywide to be 800 000 to 1 000 000, whereas URT (2010) estimates annual new job vacancies from both public and private sector to be 630 000 with the private sector being the main contributor. Consequently, from 2001 until 2011, Tanzania unemployment rate averaged 11.9% reaching an all time high of 12.9% in December of 2001 and a record low of 10.7% in October of 2011 (URT, 2011). Deloitte (2013) reports that the Tanzania's unemployment rate stood at 11.7% in 2012; which according to Rweyemamu (2013) was higher than that in Uganda which stood at 4.6% in the same year but lower than Kenya's (40%), Burundi's (35%) and Rwanda's (30%). Regardless of this, unemployment in Tanzania remains a constant threat to socio-economic development as it is higher than the tolerable rate of 4-6% (Prachowny, 2002).

Entrepreneurial entry at an individual level has been defined as a process by which individuals create and start new businesses (Cantner and Stützer, 2010). According to Davidsson (1995), the primary determinant of individuals' entrepreneurial entry is a person's conviction that starting and running one's own firm is a suitable alternative for him/her.

He argues further that this conviction is in its turn based on certain general attitudes and domain attitudes. Domain specific attitudes refer to attitudes that relate directly to a particular act, in this context, becoming an entrepreneur. These include a person's beliefs about the feasibility and desirability of entrepreneurship, as well as beliefs about how important people in a person's life might view such a career decision (Frazier and Niehm, 2006).

While there has been significant research on the causes of entrepreneurial propensity, only a limited number of studies have focused on the entrepreneurial intent (Deh *et al.*, 2013). Those that exist tend to focus on US, UK and Asia cases and are mainly restricted to students using small samples of business related majors (Sahinidis and Vassiliou, 2013; Ahmad and Xavier, 2012; Sandhu *et al.*, 2011; Nabi and Linan, 2011; Sandhu *et al.*, 2011; Smith and Beasley, 2011; Wang *et al.*, 2011; Al-Ariss, 2010; Lan and Wu, 2010; Fini *et al.*, 2009; Nabi and Holden, 2008; Teixeira, 2008; Martínez *et al.*, 2007; Klapper and Léger-Jarniou, 2006; Lüthje and Franke, 2003; Autio *et al.*, 2001). Consequently, empirical researches on entrepreneurial entry intention of university graduates in Africa and more specifically Tanzania are scanty. Available few studies focus on graduates who are already entrepreneurs and assess mostly contextual enablers and hindrances (Mwasalwiba *et al.*, 2012). Generally speaking, studies on demographic determinants of Tanzanian graduates' entrepreneurial entry intentions are in short supply; as such, this paper fills in the literature gap. The issue addressed in this paper is an important one, considering the problem of graduates' unemployment in Tanzania and the fact that the majority of the jobs are created by new businesses.

Davidsson (1995) further argues that the study of entrepreneurial intentions has some distinctive advantages over comparisons between entrepreneurs and non-entrepreneurs.

Firstly, new firm formation is always a minority phenomenon, and the factors that influence this choice can also manifest themselves in other behaviours. Therefore, no distal variables can ever be expected to predict (narrowly defined) entrepreneurial behaviour with high accuracy. In contrast, the intentions-based approach offers testable, theory-driven models of how exogenous factors (demographics, traits, current situation) affect intentions, and behaviour. Secondly, the approach avoids the fallacy of identifying determinants of entrepreneurial behaviour such as individual characteristics that in fact develop as a consequence of running one's own business. This paper is an attempt to answer the following question: What demographic variables determine university graduates' entrepreneurial entry intentions in Tanzania? In order to address this question entrepreneurial intention of graduates is assessed. The hypothesis underlying the paper is that demographic variables influence graduates' entrepreneurial intention.

The paper is framed in six key sections. Section one presents the introduction while section two and three discuss the theoretical and literature reviews respectively. The methodology is discussed in section four while section five presents a discussion on key findings. The conclusions and recommendations are discussed in section six. It is expected that by identifying demographic variables influencing entrepreneurial entry intention among graduates this study will help policy makers in the country to make policy decisions aimed at stimulating new firm formation, since it is more useful to know what kind of individuals do and do not consider going into business for themselves, than to learn about the characteristics of those who already in business.

## **5.2 A Theoretical Review**

This paper is anchored on Ajzen (1991) Theory of Planned Behaviour (TPB). TPB suggests three conceptually independent antecedents of intention. Ajzen (1991) explains

intentions by means of attitudes, perceived behavioural control, and subjective norms. Attitudes refer to the degree to which a person has a favourable appraisal of the behaviour. The second predictor of intention is subjective norm. This refers to the perceived social pressure to perform the behaviour. The third antecedent of intention is the degree of perceived behavioural control. This refers to the perceived ease of performing the behaviour and to the perceived control over the outcome of it.

The theory of planned behaviour assumes that rational considerations govern the choices and behaviours of individuals (Ajzen, 1991; Ajzen and Fishbein, 2005). Specifically, according to a precursor of this theory, called the theory of reasoned action, behaviour is determined by the intentions of individuals, their explicit plans or motivations to commit a specific act. For example, intention to quit unemployment in order to become an entrepreneur depends to an explicit commitment to this abstinence. These intentions partly, but not entirely, reflect personal attitudes of individuals, which is the extent to which they perceive this act as desirable or favourable. These attitudes reflect both cognitive beliefs about the act, such as whether they believe that unemployment is harmful, as well as affective evaluations, such as whether they feel that unemployment is unsuitable.

Demographics also affect attitudes, social norms, or perceived behavioural control and are most likely to affect intentions and behaviour. For example, in a study conducted by Conner *et al.* (2003), social norms to speed were more likely to affect the intentions of males, rather than females, to exceed the speed limit while driving alone. In addition, the degree to which significant individuals, such as parents, spouse, relatives, friends, or colleagues, condone this act, called subjective norms, also affects intentions (Ajzen, 1991; Ajzen and Fishbein, 2005). The perceived importance or relevance of these parents,



spouse, relatives, friends, or colleagues affects the extent to which their approval will shape intentions. Furthermore, these weightings might vary across contexts. For example, the beliefs of relatives are likely to shape the intentions to engage in behaviours that relate to family life. In contrast, the beliefs of managers might be more likely to shape the intention to engage in behaviours that relate to work life.

Finally, according to the theory of planned behaviour, which represented a refinement to the theory of reasoned action, the extent to which individuals feel they can engage in these behaviours, called perceived behavioural control also impinges on their intentions and behaviours (Ajzen, 1991). Perceived behavioural control comprises two main facets. First, perceived behavioural control depends on the degree to which individuals conceptualize themselves as sufficiently knowledgeable, skilful, disciplined, and able to perform some act, called internal control (Kraft *et al.*, 2005), which overlaps with the concept of self efficacy. This individuals' based conceptualization of the ability to perform an act may vary depending on demographic attributes such as age and ethnicity. Second, perceived behavioural control depends on the extent to which individuals feel that other factors, such as the cooperation of colleagues, resources, or time constraints, could inhibit or facilitate the behaviour, called external control (Kraft *et al.*, 2005).

Furthermore, intentions to perform some act do not always culminate in this behaviour. Perceived behavioural control is partly, but not absolutely, related to actual behavioural control (Armitage and Conner, 2001), which in turn affects the extent to which intentions are associated with the corresponding behaviours. Perceived and actual behavioural control can sometimes diverge, such as when individuals are oblivious to factors that obstruct or facilitate the intended behaviour.

### 5.3 Demographics and Entrepreneurial Intention

According to Deh *et al.* (2013), a debate exists in the literature concerning the influence of demographic variables on entrepreneurial entry intention. Bae *et al.* (2014) puts it clearer that, research on entrepreneurial intentions has yielded mixed results. Some studies have reported significant influences (Stangler and Spulber, 2013; Oriarewo and Owocho, 2013; Sahinidis *et al.*, 2012; Peake and Marshall, 2006; Verheul *et al.*, 2005; Bosma *et al.*, 2004; Carter, 2000; ) whereas others have reported of no significant influence (Karimi *et al.*, 2013; Lee *et al.*, 2011, Arenius and Minniti, 2005, Reynolds *et al.*, 2004). This calls for further studies to contribute to the debate.

However, a careful analysis of these prior studies has revealed that they do vary in design and context. Hence, these variations in results could be due to variations in designs and context. For instance, Stangler and Spulber (2013) studied demographic change and its impact on entrepreneurship in the United States of America. Demographic change analysis has obvious limitations, not only are long term population projections speculative, but also behavioural responses to demographic trends generally depend on economic incentives. For example, demographics is destiny in the sense that population age distribution is set decades before its effects occur. The effects of age on entrepreneurship are likely to change in response to economic incentives, which in turn will be affected by the age distribution of the population and other demographic effects.

Deh *et al.* (2013) studied the link between demographics and perceived barriers to entrepreneurship. The research was based on a cross-sectional, descriptive, quantitative design and the sample size was 136 students of the marketing department selected through convenient sampling and purposive sampling methods. The study was conducted in Ghana where a self-designed questionnaire was used to collect primary data from the respondents

during lecture hours. This study had several limitations: First, the sample was based on convenient sampling method. Hence, the findings might not be generalised to the larger population. Second, the findings are based on self-reported responses of the respondent. Hence, there may be respondent's bias which might affect the reliability of the results.

Others such as Lamottea and Colovic (2013) studied how demographics influence aggregate entrepreneurship. They designed an analysis of a cross-country panel of 53 countries among them Uganda, the UK, the USA, Uruguay, and Venezuela. Even if this study found that the age distribution of the population is related to entrepreneurial activity, it did not involve university graduates, and neither did it include Tanzania.

The mere fact is that these studies involved either business students or people who were already entrepreneurs and were done in countries other than Tanzania justifies this current study. Furthermore, the fact that these studies differ in design and most of them had not studied the impact of demographic variables from graduates' point of view on entrepreneurial intention justifies the choice of the variables under study in Tanzania.

#### **5.4 Methodology**

In this study graduates from the University of Dar es Salaam, regardless of their location within the country, were interviewed. The University of Dar es Salaam was selected for this study because of its long standing training in entrepreneurship which dates back to the years 2000. Other Universities started mainstreaming entrepreneurship courses into their curricula just recently. A cross-sectional design was employed in gathering information, whereby a semi-structured questionnaire was applied.

The University of Dar es Salaam Business School (UDBS), former Faculty of Commerce and Management (FCM) and the College of Arts and Social Sciences (CASS), former Faculty of Arts and Social Sciences (FASS) were purposively selected. The UDBS was included in this study because it was among schools where entrepreneurship courses had been mainstreamed into the degree curriculum whereas in the CASS the entrepreneurship courses had not been mainstreamed into the curriculum.

The sample involved respondents who graduated from the academic year 2000/2001 to 2010/2011. The sample size was 308 graduates, out of whom 119 graduates out of 2436 were selected among UDBS graduates and 189 out of 6889 were picked among the CASS graduates. A sample size is normally determined by three things, that is, the confidence level, the margin of error and the skewness level (Dodhia, 2007; Naing *et al.*, 2006). It was calculated using the Raosoft Sample Size Calculator (RSSC) which, among other things, determines confidence level, margin of error and skewness level. The sample size was considered adequate at 95% confidence level, 5.5% margin of error and 50% skewness level.

Systematic random sampling (SRS) was used to get the required sample size. First, a list of graduates was obtained from the UDBS and CASS. Then, the sampling interval or the  $k^{\text{th}}$  element was determined in each list using the formula  $k = (\text{population size}/\text{sample size})$ . From the UDBS list the  $k^{\text{th}}$  element was obtained by dividing 2436 by 119 which is approximately equal to 20, and from the CASS it was obtained by dividing 6889 by 189 which produced 36. Thereafter, the first element from each list was randomly chosen from within the first to the  $k^{\text{th}}$  element, that is, from UDBS the first element was chosen among the first 19 elements and from CASS it was picked from among the first 35 elements. This was made possible by writing the serial numbers of the graduates (1 to 19 for UDBS and 1

to 35 for CASS) on separate pieces of paper, which were then folded. The folded papers were then mixed up and then one picked from each cluster. The remaining 306 (118 UDBS and 188 CASS) were picked systematically after each 20th and 36th element respectively.

Graduates' contacts were obtained from the University of Dar es Salaam Alumni department. Sampled graduates whose contacts were missing in the alumni were dropped out of the sample and systematic random sampling was repeated. Fortunately, only 23 sampled graduates (9 from CASS and 14 from UDBS) had their contacts missing. Graduates were called before physically contacting them in order to ascertain their availability. Only graduates who were living within the country were involved in the study. Systematic random sampling was repeated in order to replace the sampled graduates who were not alive or were not living in the country at the time of this study. Luckily, none of them was deceased but seven of them (two from CASS and 5 from UDBS) were not living in the country.

The gathered data were then analysed using the Statistical Package for Social Sciences (SPSS) computer package whereby descriptive statistics, cross-tabulation and logistic regression were applied. Cross tabulation was used to compare the entrepreneurial entry decisions between graduates who had studied entrepreneurship and those who had not studied entrepreneurship. Logistic regression analysis was applied to test the extent to which demographic factors such as age, sex, number of children in the household, household size, birth order position, alien status, ethnic origin and marital status influence graduates' entrepreneurial entry decisions. Graduates' entrepreneurial entry intention was the binary dependent variable (measured as a dummy, 1 = if a graduate had intended to engage in entrepreneurship and 0 = if a graduate had not intended to engage in

entrepreneurship). For definition of variables and their measurements see Table 5.1. The binary logistic regression is a generalized linear model used for binomial regression. In this study, the following binary logistic model was used:

$$\text{Logit}(p_i) = \alpha + \beta_1 x_{1,i} + \beta_2 x_{2,i} + \beta_3 x_{3,i} + \dots + \beta_p x_{p,i} + \varepsilon_i \dots \dots \dots 1$$

Where:

$Y_i$  is binary and represents the probability of entry into entrepreneurship, coded as 0/1 respectively

$\beta_1 - \beta_p$  = Regression coefficients

$\alpha$  = Intercept

$x_{1,i} - x_{p,i}$  = Independent variables or predictor variables

$\varepsilon_i$  = Error term

**Table 5.1: Definition of model variables**

Variable	Variable definitions and units of measurement
Y	Dependent variable: Entrepreneurial entry intention (dummy: 1 if a graduate had intended to engage in entrepreneurship and 0 if otherwise)
X <sub>1</sub>	Age of a respondent in years
X <sub>2</sub>	Sex of a respondent (dummy, 1 if Male, 0 if Female)
X <sub>3</sub>	Number of children in the household (number of children relative to the number of adults)
X <sub>4</sub>	Birth order position (the chronological order of sibling births in a family)
X <sub>5</sub>	Ethnic origin of a respondent (dummy, 1 if Mchagga/Mhindi/Mkinga; 0 if otherwise);
X <sub>6</sub>	Marital status of the respondent (1 if married; 0 if otherwise)
X <sub>7</sub>	Household size measured as number of people in the household
X <sub>8</sub>	Alien status (dummy, 1 if native to the place, 0 if Otherwise)

The binary logistic regression was preferred in analyzing data because the dependent variable was dichotomous. Logistic regression is frequently used rather than discriminant analysis when there are only two categories of the dependent variable. Logistic regression is also easier to use with SPSS than discriminant analysis when there is a mixture of

numerical and categorical independent variables, because it includes procedures for generating the necessary dummy variables automatically, requires fewer assumptions, and is more statistically robust (Katundu and Gabagambi, 2014).

## 5.5 Findings and Discussion

This part presents key findings and their discussion. The section starts with a presentation of findings on entrepreneurial entry intention before presenting demographic determinants of the intention. In this study 27% of the interviewed graduates were females while 73% were males. Most respondents (54.5%) were married compared to those who lived single (42.5%) and widowed 2.3%.

### 5.5.1 Entrepreneurial entry intention of university graduates

The findings showed that, among the graduates who had studied an entrepreneurship course, 87.4% had clear intention of becoming entrepreneurs whereas only 11.1% of graduates who had not studied entrepreneurship had intention of involving themselves in entrepreneurship (Table 5.2).

**Table 5.2: University graduates' entrepreneurial entry intention**

Status of entrepreneurship study		Had no entrepreneurial intention	Had entrepreneurial intention
Had not studied Entrepreneurship	n	168	21
	%	88.9	11.1
Had Studied Entrepreneurship	n	15	104
	%	12.6	87.4

p = 0.000; Lambda = 0.702; Goodman and Kruskal tau = 0.571

Furthermore, the findings showed that there is a positive association between studying entrepreneurship and entrepreneurial entry intention. The lambda value of 0.702 and Goodman and Kruskal tau (based on chi-square approximation) of 0.571 showed a strong

relationship between studying entrepreneurship and intention to become an entrepreneur in future. The results were statistically significant at  $p < 0.05$ . The findings imply that entrepreneurship study contributes significantly to improving graduates' entrepreneurial intention because the majority of graduates who had studied entrepreneurship during their undergraduate studies had clear ambitions of becoming entrepreneurs than those who had not studied entrepreneurship.

### 5.5.2 Demographic determinants of graduates' entrepreneurial intention

The binary logistic regression model was estimated to identify demographic determinants of entrepreneurial entry intention of university graduates. The overall significance of the model was assessed using an Omnibus tests of model coefficients which produced the Chi-square of 50.478 and p-value of 0.000 as well as the Hosmer and Lemeshow test with Chi-square equals to 3.886 and p-value equals to 0.867. The two measures together indicate that the model of entrepreneurial entry intention was more suitable to the data. The Nagelkerke's  $R^2$  was 0.413 indicating a moderate relationship between prediction and grouping. The findings in Table 5.3 are discussed in details in the subsequent sections 5.2.1 to 5.2.4.

**Table 5.3: Demographic determinants of graduates' entrepreneurial intention**

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)
Sex	3.310	1.027	10.394	1	0.001	27.394
Alien Status	-0.614	0.510	1.452	1	0.228	0.541
Age	2.704	0.351	4.016	1	0.005	10.495
Number of Children in the Household	0.168	0.135	1.548	1	0.213	1.183
Birth Order Position	-1.761	0.356	4.579	1	0.032	0.467
Household Size	0.132	0.174	0.579	1	0.447	1.142
Ethnic Origin	0.231	0.341	0.458	1	0.499	1.260
Marital Status	3.344	1.026	10.620	1	0.001	28.326
Constant	3.816	1.225	9.708	1	0.002	0.022

Nagelkerke R Square = 0.413; Cox & Snell R Square = 0.341; Hosmer and Lemeshow Test (Chi-square = 3.886; Sig. = 0.867); Omnibus tests of model Coefficients (Chi-square = 50.478; Sig. = 0.000); -2 Log likelihood = 284.965; The influence of sex on graduate's entrepreneurial entry intention.



The Wald statistic demonstrated that sex made a significant contribution to predicting entrepreneurial entry intention of a graduate ( $p < 0.05$ ; Wald = 10.394; Exp (B) = 27.394). Exp (B) value indicates that males were 27 times more likely to have entrepreneurial intention than females. The possible explanation here may be that female respondents are discouraged by household responsibilities such as cooking and taking care of children than males who by tradition are exempted of such duties. Another explanation may be the fact that in most African families a man is the head of household who is responsible for decision making, feeding the family members, paying school fees and meeting medical charges among other things. This forces a man to think on alternative sources of income including entrepreneurial activities.

### **5.5.3 The effects of age of a graduate on entrepreneurial entry intention**

The results indicated that age was another strong predictor of entrepreneurial entry intention. The results were statistically significant at  $p < 0.05$ ; with a Wald statistic of 4.016 and Exp (B) = 10.495, implying that when age increases by 1 year the odds ratio is 10.495 times meaning older graduates were 10 times more likely to intend to engage in entrepreneurship than younger graduates. This might be due to the fact that most of the older graduates were married and had multiple family responsibilities of which salary alone could not be sufficient to meet family demands. Hence, entrepreneurship is considered one of the viable alternative sources of income.

Additionally, the difference may also be attributed to the time lag, because this study sampled both recent graduates and older graduates. The argument here is that a respondent who had graduated ten years previously had more opportunity to be exposed to entrepreneurship environment than someone who had just one year since graduation. Likewise, older people have, on average, a larger amount of several key resources that

facilitate the transition to entrepreneurship. Specifically, they have accumulated more general and specific human capital, financial capital and social capital, including a more diversified and dense network of contacts.

#### **5.5.4 Influence of birth order position on entrepreneurial entry intention**

Another strong predictor of entrepreneurial intention was graduate's birth order position. Logistic regression analysis for this variable produced a Wald statistic of 4.579 and an Exp (B) of 0.467. The results were statistically significant at  $p < 0.05$ . However, the coefficient was negative indicating that entrepreneurial entry intention is best predicted with lower birth order positions, that is first and middle born individuals were 0.5 more likely to intend to become entrepreneurs than later-borns, say last ones. These results may be attributed to the fact that first born children normally enjoy a very special relationship with their parents.

Researchers such as McAllister (2012) argue that first born children get to receive undivided attention and every accomplishment is treated special. First time parents often try very hard to make sure that their first born sons or daughters get to be self-reliant individuals. Contrary to a first born, the youngest born in the family grows up with experienced, more laid back parents, which in turn makes them more laid back as individuals. Generally speaking, last borns are more outgoing and engaging. They typically have fewer responsibilities and have more freedom to do things their own way, which makes them free-spirited and creative. However, birth order as birth order does not make an individual entrepreneur. It is the upbringing of the siblings which matters, because siblings develop in competition for parental favours. Birth order fosters differences in personality which in turn correlates with differences in creative achievement. These results support that of Sulloway (1999).

### **5.5.5 Influence of marital status on entrepreneurial entry intention**

It was found that married respondents had high and clearer entrepreneurial intentions than singles. The results were statistically significant at  $p < 0.05$ , a Wald statistic of 10.620 and an Exp (B) of 28.326, indicating that married graduates were 28 times more likely to intend to become entrepreneurs than singles. Unlike paid employment, profit from entrepreneurship activities is unpredictable. This is the reason why many people assess carefully their decisions to engage in any entrepreneurial activity. In most cases, entry into entrepreneurship involves exploiting an entrepreneurial opportunity which also entails assessing carefully on potential profit and loss. Because entrepreneurship is uncertain, people demand compensation or buffer for bearing this uncertainty.

Marriage seems to provide such an important buffer because adverse effects of failure are moderated by the income of a spouse. However, some people demand higher premiums for bearing uncertainty than others. In general, those people for whom uncertainty has a greater negative effect demand a greater uncertainty premium than those people for whom uncertainty has a lesser negative effect. These findings support that of Shane (2003); Fairlie (2011). According to Fairlie (2011), being married and having a working spouse increases likelihood of opportunity exploitation, presumably by reducing the person's expected uncertainty premium.

However, the study had some limitations. First, the findings are based on self-reported responses of the respondent. Hence, there may be respondent's bias which might affect the reliability of the results. Second, the study did not consider cultural variations of graduates as they were scattered all over the country, and hence culture might have some influence on the way they perceive entrepreneurship. The impacts of self-reported responses were minimized through triangulation of data whereby university records were gathered to

verify data collected from respondents. To control the influence of culture, forced-choice items were applied. This technique generated questions that were equal in desirability to control responses in one direction or another.

Regardless of these limitations, this study is still important because demographics are one of the most important factors affecting entrepreneurship, job creation, and innovation. Demographic change shapes all issues that occupy most economic discussions education, employment policy, taxes, technological changes, and more. Demographic analysis anticipates future trends, helping decision makers to prepare policy interventions accordingly.

## **5.6 Conclusion and Recommendations**

This study concludes that demographic factors such as sex, age, birth order position and marital status significantly predict graduates' entrepreneurial entry decisions. It is further concluded that sex and marital status have bigger contribution than most other factors. This implies that males and married graduates have stronger desire of becoming entrepreneurs than females and those who stay single. These findings suggest that demographic factors contribute to predicting entrepreneurial entry intention.

Even if some demographics cannot be altered by policy makers, having clear knowledge on trends and potential effects of demographics in terms of innovation and new venture creation will allow policy makers to create proper frameworks. For example, understanding the demographic determinants of graduates' entrepreneurial entry decisions allows universities, consultants, advisors and policy makers to get a clearer picture of how intentions are formed and how new venture founders' beliefs, perceptions and motives impact the intent to start a business. Therefore, knowledge of the determinants of

entrepreneurial intention can help entrepreneurial trainers find the right way to mould the intention and enhance the probability of consequent behaviour to create new ventures.

In view of the above findings and conclusions, the following recommendations are given:

- (i) Since marital status is a major demographic determinant of entrepreneurial entry intention, organizations intending to make any intervention on graduate entrepreneurship in the country are urged to focus on married graduates. This is because married graduates are more likely to become entrepreneurs than those staying single. It is also recommended that entrepreneurship trainers should design tailor made programmes for graduates who live single in order to help them increase their level of entrepreneurial tendencies and change their mindset.
- (ii) A study on joint venture creation among graduates is required. Researchers should focus on the contribution of joint venture in counterbalancing negative effects of age differences as well as harmful effects of birth order positions due to their inborn or upbringings weaknesses.

## 5.7 References

- Ahmad, Z. S., and Xavier, S. R. (2012). Entrepreneurial environments and growth: evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship* 4 (1): 50 – 69.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes* 50: 179-211.
- Ajzen, I. and Fishbein, M. (2005). The influence of attitudes on behaviour. *The Handbook of Attitudes* 1: 173-221
- Al Ariss, A. (2010). Modes of engagement: Migration, self-initiated expatriation, and career development. *Career Development International* 15(4): 338 –358.
- Arenius, P., and Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics* 24 (3): 233–247.
- Armitage, C. J., and Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology* 40: 471-499.
- Bae, T. J., Qian, S., Miao, C. and Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice* 1: 217-254.
- Bandura, A. (1986). *The Social Foundations of Thought and Action*. Englewood Cliffs, Prentice-Hall, New Jersey. 617pp.

- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review* 13: 442-453.
- Bird, B. (1993). Demographic approaches to entrepreneurship: the role of experience and background. *Advances in Entrepreneurship, Firm Emergence, and Growth* 1: 11-48.
- Bosma, N., van Praag, M., Thurik, R., and de Wit, G. (2004). The value of human and social capital investments for the business performance of start-ups. *Small Business Economics* 23: 227-236.
- Boyd, N.G. and G. S. Vozikis (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory & Practice* 1: 63-77.
- Brockhaus R. H. Sr. and P. S. Horwitz (1986). The Psychology of Entrepreneurship. In: *The Art and Science of Entrepreneurship. (Edited by Krueger, N.F.)* Routledge, London. pp. 25-48.
- Campbell, C. A. (1992). A decision theory model for entrepreneurial acts. *Entrepreneurship Theory & Practice* 1: 21-27.
- Cantner, U., and Stützer, M. (2010). The use and effect of social capital in new venture creation-solo entrepreneurs vs. new venture teams. *Jena Economic Research Papers* 1: 2010–012.

- Carter, S. (2000). Sex and enterprise. *Enterprise and Small Business Principles, Practice and Policy* 1: 166–181.
- Conner, M., Povey, R., Sparks, P., James, R., and Sheperd, R. (2003). Moderating role of attitudinal ambivalence within the theory of planned behaviour. *British Journal of Social Psychology* 42: 75-94.
- Damaraju, N. L., Barney, J. and Dess, G. (2010). Stigma and entrepreneurial risk taking.[<http://www2.druid.dk/conferences/viewpaper.php?id=502023&cf=43>] site visited on 07/04/2014.
- Davidsson, P. (1995). Determinants of entrepreneurial intentions.
- Deh, I. Y., Asuamah, S. Y. and Agyemang, I. K. (2013). The link between demographics and perceive barriers to entrepreneurship. *Journal of Small Business and Entrepreneurship Development* 1(1): 42-50.
- Deloitte (2013). East Africa budget, growing steady economic outlook 2013. [<https://www.deloitte.com/assets/DcomKenya/Local%20Assets/Documents/Budget%202013/EconomicOutlook2013.pdf>] site visited on 30/06/2014.
- Dodhia, R. M. (2007). Sample size calculations. [[http:// www. ravenanalytics. com/ Articles/Sample\\_Size\\_Calculations.htm](http://www.ravenanalytics.com/Articles/Sample_Size_Calculations.htm)] site visited on 20/7/2012.



- Drennan, J., Kennedy, J. and Renfrow, P. (2005). Impact of childhood experiences on the development of entrepreneurial intentions. *International Journal of Entrepreneurship & Innovation* 6 (4): 231-238.
- Ebrahim, M. and Schøtt, T. (2011). Entrepreneurial intention promoted by perceived capabilities, risk propensity and opportunity awareness: A global study. [[https://www.academia.edu/948712/Entrepreneurial\\_Intention\\_Promoted\\_by\\_Perceived\\_Capabilities\\_Risk\\_Propensity\\_and\\_Opportunity\\_Awareness\\_A\\_Global\\_Study](https://www.academia.edu/948712/Entrepreneurial_Intention_Promoted_by_Perceived_Capabilities_Risk_Propensity_and_Opportunity_Awareness_A_Global_Study)] site visited on 14/05/2014.
- Fairlie, R. W. (2011). Entrepreneurship, Economic Conditions, and the Great Recession. IZA DP. No. 5725 [<http://ftp.iza.org/dp5725.pdf>] site visited on 11/03/2014.
- Fini R., Grimaldi, R., Marzocchi G. L. and Sobrero M., (2009). The foundation of entrepreneurial intention. [[www.imperial.ac.uk/people/r.fini/research.html](http://www.imperial.ac.uk/people/r.fini/research.html)] site visited on 11/01/1012.
- Frazier, B. J. and Niehm, L. S. (2006). Predicting the entrepreneurial intentions of non-business majors: a preliminary investigation. [<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.334.2930&rep=rep1&type=pdf>] site visited on 02/04/2014.
- Gupta, V. K., and York, A. S. (2008). Attitudes towards entrepreneurship and small business: Findings from a survey of Nebraska residents and small business owners. *Journal of Enterprising Communities* 2: 348–66.

- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., Mulder, M., and Mahdei, K. N. (2013). Understanding role models and sex influences on entrepreneurial intentions among college students. *Procedia - Social and Behavioural Sciences* 93: 204–214.
- Katundu, M. A. and Gabagambi, D. M. (2014). Determinants of entrepreneurial tendencies among Tanzanian university graduates: A case of university of Dar es Salaam. *European Academic Research* II (1): 835-869.
- Katz, J. (1992). A psychological cognitive model of employment status choice. *Entrepreneurship Theory & Practice* 1: 29-37.
- Klapper, R., and Léger-Jarniou, C. (2006). Entrepreneurial intention among french grande école and university students: an application of Shapero's model. *Industry and Higher Education* 1: 97-110.
- Klyver, K. and Grant, S. (2010). Sex differences in entrepreneurial networking and participation. *International Journal of Sex and Entrepreneurship* 2 (3): 213 – 227.
- Kraft, P., Rise, J., Sutton, S., and Roysamb, E. (2005). Perceived difficulty in the theory of planned behaviour: Perceived behavioural control or affective attitude. *British Journal of Social Psychology* 44: 479-496.
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory & Practice* 1: 5-21.
- Krueger, N. and A. Carsrud (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development* 5: 315-330.

Krueger, N. and D. V. Brazael (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory & Practice* 1: 91-104.

Krueger, N., (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship: Theory and Practice* 18 (1): 5-21.

Lamottea, O. and Colovic, A. (2013). Do demographics influence aggregate entrepreneurship? *Applied Economics Letters* 20 (13): 1206 –1210.

Lan, Q., and Wu, S. (2010). An empirical study of entrepreneurial orientation and degree of internationalization of small and medium-sized Chinese manufacturing enterprises. *Journal of Chinese Entrepreneurship* 2(1): 53 – 75.

Lee, L., Wong, P. K. Foo, M. D. and Leung, A. (2011). Entrepreneurial intentions: the influence of organizational and individual factors. *Journal of Business Venturing* 26: 124–136.

Lindquist, M. J., Sol, J. and Van Praag, M. (2012). Why do entrepreneurial parents have entrepreneurial children? [<http://ftp.iza.org/dp6740.pdf>] site visited on 7/4/2014.

Lüthje, C. and Franke, N. (2003). The ‘making’ of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management* 33: 135-147.

- Martínez, D., Mora, J.- G. and Vila, L. (2007). Entrepreneurs, the self-employed and employees amongst young european higher education graduates. *European Journal of Education* 42 (1): 137-158.
- McAllister, R. (2012). Birth order shapes personality, ever wondered why you are the way you are? [<http://www.rallieonhealth.com/rallies-articles/news-you-can-use-for-better-health/birth-order-shapes-personality>] site visited on 10/08/2014.
- Mcha, M. Ch. (2012). Addressing employment challenges in Tanzania: Strategic policy options and actions by stakeholders. [<http://clknet.or.tz/wp-content/uploads/2012/02/Presentation-Addressing-Employment-Challenges-3.pdf>] site visited on 23/02/2014.
- Mwasalwiba, E., Dahles, H. and Wakkee, I. (2012). Graduate entrepreneurship in Tanzania: Contextual enablers and hindrances. *European Journal of Scientific Research* 76 (3): 386-402.
- Nabi, G. and Holden, R. (2008). Graduate entrepreneurship: Intentions, education and training. *Education & Training* 50 (7): 545-551.
- Nabi, G., and Liñán, F. (2011). Graduate entrepreneurship in the developing world: Intentions, education and development. *Education + Training* 53 (5): 325 – 334.
- Naing, L., Winn, T. and Rusli, B. N. (2006). Practical issues in calculating the sample size for prevalence studies. *Archives of Orofacial Sciences* 1: 9-14.

- Oriarewo, G. O. and Owocho, M. (2013). Factors influencing entrepreneurial intentions among graduates of Nigerian tertiary institutions. *International Journal of Business and Management Invention* 2 (4): 36 – 44.
- Parker, S. (2009). *The Economics of entrepreneurship*, Cambridge University Press, Cambridge. 570pp
- Peake, W. O. and Marshall, M. I. (2006). What do we really know about entrepreneurs? An analysis of nascent entrepreneurs in Indiana, working paper # 06-14 [[http://ageconsearch.umn.edu/bitstream/28622/1/wp060014 .pdf](http://ageconsearch.umn.edu/bitstream/28622/1/wp060014.pdf)] site visited on 04/04/2014.
- Peng, C. J., Lee, K. L., and Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *Journal of Educational Research* 96 (1): 3-13.
- Prachowny, M. F. J. (2002). *The Goals of Macroeconomic Policy*. Routledge, New York. 232pp.
- Reynolds, P. D., Carter, N. M., Gartner, W. B. and Greene P.G. (2004). The prevalence of nascent entrepreneurs in the United States: evidence from the panel study of entrepreneurial dynamics. *Small Business Economics* 23: 263-284.
- Rweyemamu, A. (2013). Unemployment: Youth hit hard. [<http://www.ippmedia.com/frontend/?l=50537>] site visited on 30/06/2014.
- Sahinidis, A. G. and Vassiliou, E. E. (2013). Intention to start a new business, using the theory of planned behaviour to predict the starting of a new venture by entrepreneurs and self-employed individuals. *Quantitative and Qualitative Methodologies in the Economics and Administrative Sciences* 1: 324-332

- Sahinidis, A. G. Giovanis, A. N. and Sdrolas, L. (2012). The role of sex on entrepreneurial intention among students: An empirical test of the theory of planned behaviour in a Greek university. *International Journal on Integrated Information Management* 1 (1): 61-79.
- Sandhu, M. S., Sidique, S. F., and Riaz, S. (2011). Entrepreneurship barriers and entrepreneurial inclination among Malaysian postgraduate students. *International Journal of Entrepreneurial Behaviour & Research* 17 (4): 428 – 449.
- Shane, S. A. (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Edward Elgar Publishing, Cheltenham. 327pp.
- Smith, K. and Beasley, M. (2011). Graduate entrepreneurs: Intentions, barriers and solutions. *Education & Training* 53 (8/9): 722-740.
- Souitaris, V., Zerbinati, S. and Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing* 22 (4): 566-591.
- Spicer, J. (2004). Making sense of multivariate data analysis. *Sage Publications* 1: 123-151.
- Stangler, D. and Spulber, D. (2013). The age of the entrepreneur: demographics and entrepreneurship. Demographics and entrepreneurship summit march 2013. [[http://iiij.org/wpcontent/uploads/2013/05/i4jDaneStanglerDemographics and Entrepreneurship-1.pdf](http://iiij.org/wpcontent/uploads/2013/05/i4jDaneStanglerDemographicsandEntrepreneurship-1.pdf)] site visited on 04/04/2014.

Strömbergsson, S. (2009). Binary logistic regression and its application to data from a study of children's recognition of their own recorded voices. [stp.lingfil.uu.se/~nivre/statmet/strombergsson.pdf] site visited on 14/05/2014.

Suloway, J. F. (1999). Birth order. *Encyclopedia of Creativity* 1:189-202.

Teixeira, A. A. C. (2008). Entrepreneurial potential in chemistry and pharmacy. Results from a large survey. *Journal of Business Chemistry* 5 (2): 48-63.

URT (2010). United Republic of Tanzania National Strategy for Growth and Reduction of Poverty II (NSGRP II). Ministry of Finance and Economic Affairs, Dar es Salaam. [http://www.acdicida.gc.ca/INET/IMAGES.NSF/vLUIImages/Tanzania/\$file/national-strategy-for-growth-and-reduction-of-poverty-tanzania.pdf] site visited on 30/06/2014.

URT–United Republic of Tanzania (2011). The Tanzania National Bureau of Statistics. Unemployment estimates for the year 2011. [http://www.nbs.go.tz/index.php?option=com\_content&view=article&id=186:unemployment-estimates-for-the-year-2011&catid=100:employment-and-earnings&Itemid=135] site visited on 23/02/2014.

Verheul, I., Uhlaner, L. M., and Thurik, A. R. (2005). Business accomplishments, sex and entrepreneurial self-image. *Journal of Business Venturing* 20 (4): 483–518.

Wang, W., Lu, W. and Millington, J. K. (2011). Determinants of entrepreneurial intention among college students in China and USA. *Journal of Global Entrepreneurship Research* 1(1): 35-44.

## **CHAPTER SIX**

### **6.0 SUMMARY, IMPLICATIONS, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Summary of the Major Findings**

This section presents a summary of the major findings in accordance with the study objectives. First, a summary of the major findings on entrepreneurial tendencies of Tanzanian university graduates is presented. It is followed by a summary of the major findings on the determinants of entrepreneurial tendencies, barriers to business start-up, correlation between entrepreneurial education and business start-up, and ends with a summary of the major findings on demographic determinants of entrepreneurial entry intention.

##### **6.1.1 Entrepreneurial tendencies of Tanzanian university graduates**

It was found that generally, university graduates had low entrepreneurial tendencies. Moreover, it was further observed that graduates who had studied entrepreneurship courses had higher entrepreneurial tendencies in terms of the need for achievement, the need for autonomy and independence, the creative tendency propensity, the calculated risk taking attribute and the internal locus of control than those who had not studied entrepreneurship. The results were statistically significant at  $p < 0.05$ . The majority of them scored above average in each of the five attributes included in the General Enterprising Tendency (GET) test. It was further found that graduates who had studied at least one entrepreneurship course in their undergraduate degree programmes had twice as much higher entrepreneurial propensity than those who had not studied entrepreneurship.



### **6.1.2 Determinants of entrepreneurial tendencies among graduates**

With regard to the determinants of entrepreneurial tendencies, this study found that six factors contributed to predicting entrepreneurial tendencies of the surveyed graduates. These factors were: Entrepreneurship education, parents' education level, number of children in a family, parents' occupation, age and birth order position ( $p < 0.05$ ). It was also observed that, of all these six determinants, entrepreneurial education played the greatest role in determining entrepreneurial tendencies.

### **6.1.3 Barriers to business start-up among Tanzanian university graduates**

The study further found that inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitment to extended families and bureaucratic tendencies in the government system were the most inhibiting factors to business start-up amongst Tanzanian university graduates. Other contributing hurdles included: Lack of social networking, limited start-up capital, insufficient information on entrepreneurial opportunities, lack of government support as well as fear of risks associated with entrepreneurship. The results were statistically significant at  $p < 0.05$ . Market constraints and fear of failure were not important predictors of business start-up.

### **6.1.4 Correlation between entrepreneurial education and business start-up**

It was found that there was a positive association between studying entrepreneurship and entrepreneurial entry intention ( $p < 0.05$ ). Graduates with entrepreneurship training and those coming from educated families had greater overall entrepreneurial characteristics, higher achievement motivation, more personal control, risk-taking propensity and greater self-esteem than a comparable cohort. The study further found that entrepreneurship training influenced the way graduates perceived the barriers; it was observed that graduates who studied entrepreneurship had reported different start-up barriers from those reported by their counterparts.

### **6.1.5 Demographic determinants of entrepreneurial entry intention**

Concerning demographic determinants of entrepreneurial entry intention, it was established that demographic variables such as graduates' sex, age, birth order position and marital status significantly contributed to predicting graduates' entrepreneurial entry intention ( $p < 0.05$ ). It was further found that marital status had the greatest contribution of all the four significant factors, implying that married graduates had stronger aspiration of becoming entrepreneurs than singles.

## **6.2 Theoretical and Policy Implications of the Findings**

This part presents theoretical and policy implication of the findings. It starts with theoretical implications and finishes with policy implications. In this section, the demographic determinants of entrepreneurial entry intentions and the perceived barriers to entrepreneurship are linked to the Theory of Planned Behaviour.

### **6.2.1 Theoretical implications**

Demographic determinants of entrepreneurial entry decisions as well as the perceived barriers to entrepreneurship are best theorized using the Theory of Planned Behaviour (TPB) as developed by Ajzen in 1991. Demographics (sex, age, birth order position and marital status established in this study) affect attitudes, social norms, or perceived behavioural control and are most likely to affect intentions and behaviour. For example, the degree to which significant individuals, such as parents, spouses, relatives, friends, or colleagues, condone this act called subjective norms and also affects intentions. The perceived importance or relevance of these parents, spouse, relatives, friends, or colleagues affects the extent to which their approval will shape intentions. Furthermore, these weightings might vary across contexts such that, the beliefs of relatives are likely to shape the intentions to engage in behaviours that relate to family life. In contrast, the

beliefs of managers might be more likely to shape the intention to engage in behaviours that relate to work life.

TPB is relevant in explaining barriers to business start-up because it remains open to the influence of exogenous factors that may play a role in the development of beliefs and attitudes. It explains the relationship between behavioural intentions and actual behaviour of an individual. According to the TPB, entrepreneurship is a function of internal psychological and external factors. The psychological factors and external factors reported in this study are: inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitment to extended families and bureaucratic tendencies in the government system. Other exogenous factors include: Lack of social networking, limited start-up capital, insufficient information on entrepreneurial opportunities, lack of government support as well as fear of risks associated with entrepreneurship.

The findings offer important theoretical explanation, that is, graduates' entrepreneurial entry decisions in Tanzania can be predicted because factors affecting intentions can be predicted. Due to the influence of education on the attitudes and entrepreneurial aspirations of graduates, it is important for the government and university policy makers to understand how to develop and nurture potential entrepreneurs even while they are still students.

### **6.2.2 Policy Implications**

The findings imply that entrepreneurship education is indeed a feasible solution for increasing entrepreneurial tendencies of graduates. If all graduates had been subjected to entrepreneurship study, they would have scored generally higher values on the GET test.

It is equally important to note that some individual entrepreneurial determining factors such as age and birth order position cannot be altered, hence very little can be done, if any, to improve them. But most of the entrepreneurial determining factors in this study can be improved.

The findings further imply that, unless all study recommendations are adequately and holistically addressed by the responsible authorities, very few graduates will continue opting for entrepreneurship. Therefore, knowledge of the determinants of entrepreneurial intention can help entrepreneurial trainers find the right way to mould the entrepreneurial intention of graduates. It also helps policy makers to design appropriate short and long term policy strategies in order to enhance the probability of the consequent behaviour new venture creation.

### **6.3 Conclusions**

In this sub-section conclusions are presented in accordance with the study objectives and the summary of the major findings as follows:

It is concluded that low entrepreneurial tendencies of university graduates might be partly attributed to the lack of entrepreneurial training. It is important to note that, not all graduates had studied entrepreneurship. Contrary to what was hypothesized, it was observed that the majority among those who had lower tendencies came from the cohort that never studied entrepreneurship. When studied alone, the group that opted for entrepreneurship study scored above average in terms of the need for achievement, the need for autonomy and independence, the creative tendency propensity, the calculated risk taking attribute and the internal locus of control propensity.

It is also concluded that six factors contributed to predicting entrepreneurial tendencies of the surveyed graduates. Different from what the stipulated hypotheses pointed out, entrepreneurship education, parents' education level, number of children in a family, parents' occupations, age and birth order position were found to be contributors of high entrepreneurial tendencies of graduates. It is also concluded that, of all the factors, entrepreneurship education had the greatest contribution to determining entrepreneurial propensity of the surveyed graduates.

It is further concluded that smaller number of business start-ups among university graduates in Tanzania cannot be attributed to the limited start-up capital only; several interplaying factors are responsible for it. The main hurdles as mentioned in the previous sections include: inappropriate teaching methods, lack of business experience, deficiencies in the university programmes, commitment to extended families and bureaucratic tendencies in the government system. These factors, combined with demographic variables make a set of socio-demographic barriers which together limit graduates' ability to start and own firms.

Moreover, it is concluded that graduates who had studied at least one entrepreneurship course during their undergraduate studies had higher entrepreneurial propensity and had clearer aspirations of becoming entrepreneurs in the future than those who had studied normal degree programmes. This is also contrary to what was expected. It is further concluded that entrepreneurship study influences the way graduates perceive the barriers, as it was observed that graduates who studied entrepreneurship had reported different start-up barriers from those reported by their counterparts.

It is also concluded that, even if some demographics cannot be altered by policy makers, having a clear knowledge on trends and potential effects of demographics in terms of

innovation and new venture creation will allow policy makers to create proper frameworks. For example, understanding the determinants of graduates' entrepreneurial entry decisions allows universities, consultants, advisors and policy makers to get a clearer picture of how intentions are formed and how new venture founders' beliefs, perceptions and motives impact the intent to start a business.

## **6.4 Recommendations**

Pertaining to the above findings and conclusions, it is imperative that universities and the government should ensure that graduates get the support they require to put their business plans and ideas into action. To that effect, several recommendations for graduates, university educators and administrators as well as policy makers are put forward as follows:

### **6.4.1 Recommendations to university graduates**

Since birth order position contributes to predicting entrepreneurial tendencies, graduates are urged to join forces with their siblings, if possible in forming and owning firms. Together, they can offset their "inborn or rearing weaknesses" and can build a better business.

### **6.4.2 Recommendations to university educators and administrators**

To increase the level of graduates' entrepreneurial tendencies, it is recommended that universities and other higher learning institutions countrywide should make entrepreneurship training compulsory to all students. Entrepreneurship courses will facilitate the process of promoting entrepreneurial interests among students (future graduates) by imparting the skills and confidence they need to start their own businesses. Universities countrywide are urged to embark on a long term mission to expose students

(future graduates) to self-determination and practical exploration in entrepreneurship at an early stage and evaluate their progress while still studying.

It is further recommended that universities in Tanzania should adopt a “Student Centered Learning Model” (SCLM) which is commonly known as the “Entrepreneurial Directed Approach” (EDA). EDA will enable students (prospective graduates) to have a positive entrepreneurial mindset. The techniques associated with EDA are: running a real business, and visiting business locations and interview with entrepreneurs. These teaching techniques are considered to be very important in improving students’ entrepreneurial awareness and skills. EDA will also improve students’ enterprising behaviour through prior exposure to other “hands on” entrepreneurship teaching techniques such as developing business plans, case analysis, class presentation and discussion. Entrepreneurship education in universities should consider teaching techniques that require students to have “hands on” enterprise experience as well as to practice entrepreneurial directed approach in improving university students’ entrepreneurial mindset.

Concerning barriers to business start-up, it is recommended that a holistic approach is required to address the barriers. Since there is no single approach which could solve all the problems, universities and the government must ensure that graduates get the support they require to put their business plans and ideas into action. In that regard, the following recommendations are put forward: To promote entrepreneurship in universities and other higher learning institutions, the institutions should employ teaching methods that allow both practical application of the learnt material as well as holistic development of skill-sets required. In the context of entrepreneurship, this relates to teaching both theoretical and practical aspects of businesses. Efficient teaching methods go beyond reciting formulae in

text books; they empower students to develop free and creative thinking in the application of knowledge and theory in the real world.

To solve the lack of business experience impediment, universities and other higher learning institutions in the country should adopt apprenticeship and field attachment approach. Students may be sorted into two groups, one group to include students who wish to become employees and another group of students who aspire to be entrepreneurs. The first group may be subjected to class lectures and fewer fields practical while the potential entrepreneurs' group must be subjected to more field practical and less lectures. To gain enough experience it is recommended that a student should be attached to a practising entrepreneur, stay and work at the firm for not less than one year.

#### **6.4.3 Recommendations to the Tanzania Commission for Universities**

Regarding deficiencies in the university programmes, this thesis recommends that Tanzania Commission for Universities (TCU) can help higher learning institutions in Tanzania to come up with demand driven curricula particularly on entrepreneurship and related courses. Education needs to be competency based. Institutions must teach students to think and be innovative and creative. To do this two things may be done; one, all universities ought to have a common vision on what type of nation they want to build and what type of graduates will fit into the national agenda. As a country we need to have a single agenda or philosophy on education. The agenda should be to produce graduates who are self-confident, entrepreneurially motivated, critical thinkers and development seekers. The Tanzania Commission for Universities (TCU) can help on this by providing guidance and coordination. Moreover, students ought to be involved in setting educational objectives, particularly when designing entrepreneurship and related curricula.



#### **6.4.4 Recommendations to the Government of Tanzania**

The government should address the challenge of limited start-up capital among graduates. Government's role is to stimulate that funding ecosystem and provide comprehensive support within this very complex space. One way for the government to help is by putting in place appropriate regulatory frameworks that can enable innovative funding mechanisms, such as "crowd-funding", to flourish. It is proposed that the government should establish a "special fund" which will offer soft loans to prospective graduates with limited conditions. A bureau similar to the current Higher Education Students' Loans Board is recommended. Crowd-funding is a way of attracting small amounts of funding or donations directly from multiple investors using fund raising strategies such as evening dinners. Beyond facilitating the funding itself, governments have an important role to play in helping entrepreneurs establish networks of relevant contacts and gain insight into how to access funds.

Since marital status is a major demographic determinant of entrepreneurial entry intention, organizations intending to make any intervention on graduate entrepreneurship in the country are urged to focus on married graduates. This is because married graduates are more likely to become entrepreneurs than those staying single. It is also recommended that entrepreneurship trainers should design tailor made programmes for graduates who live single in order to help them increase their level of entrepreneurial tendencies and change their mindset.

#### **6.4.5 Recommendations for further studies**

There are several issues on graduate entrepreneurship in Tanzania that call for further studies; this study draws attention to two of them: First, is the level of risk aversion. This study did not analyse the level of risk aversion among the graduates. Hence, it will be very

important to investigate perception of risk among the graduates in the country considering the fact that risk taking is recognized by scholars as a trait of a successful entrepreneur.

Second, another study should be on joint venture creation among graduates. Researchers should focus on the contribution of joint venture in counterbalancing negative effects of age differences as well as harmful effects of birth order positions due to their inborn or upbringings weaknesses.

## APPENDICES

### Appendix 1: Questionnaire

#### Introduction

My name is ***Mangasini, A. K.*** a PhD candidate at Sokoine University of Agriculture (SUA) in Morogoro, Tanzania. I am conducting a study on “***Entrepreneurial Education and Self-Employment: Assessing Enterprising Tendencies among University graduates in Tanzania***”. I am particularly interested with 2001-2011 University of Dar es Salaam graduates, who studied in the Faculty of Arts and Social Sciences (FASS) now College of Arts and Social Sciences (CASS) and Faculty of Commerce now University of Dar es Salaam Business School (UDBS). You have been chosen because you fall within this group and you possess valuable information which will help me finalize my study. I understand the tight schedule you have, but you can assist. I am humbly, requesting you to fill in this questionnaire, all responses will be treated with the ***upper most confidentiality*** they deserve. You are free to fill in this questionnaire or not. Even if I will prefer all questions to be filled, you may choose as well not to fill in any question you think is not ***ethically*** suitable to you.

**Name (Optional):** \_\_\_\_\_

**Organization:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_

**Region:** \_\_\_\_\_

**Town:** \_\_\_\_\_

**Phone number:** \_\_\_\_\_

**E-mail address:** \_\_\_\_\_

#### A: Background information

1. Sex (check only one): Male = 1 Female = 0

2. Your age in years \_\_\_\_\_

3. Year graduated \_\_\_\_\_
4. Months spent without job after first graduation \_\_\_\_\_
5. Degree programme studied \_\_\_\_\_
6. Ethnic origin (check only one): 1 = Mkinga; 2 = Mchaga; 3 = Indian; 4 = Others (Specify) \_\_\_\_\_
7. Marital status (check only one): 1 = single; 2 = Married; 3 = widow/widower; 4 = divorced; 5 = Others (Specify) \_\_\_\_\_
8. How many children did your parents have? \_\_\_\_\_
9. How many children do you have? \_\_\_\_\_
10. What is your birth order position in 8 above? (use 1 for first born; 2 for second born; 3 for third born; etc; **write 9 if last born**): \_\_\_\_\_
11. Parents' main occupation (check only one)
  - 1 = Public servant
  - 2 = Employed with non-governmental organization
  - 3 = Owning a business/firm
  - 4 = Farmer
  - 5 = Others (Specify) \_\_\_\_\_
12. Parents' alien status (check only one):
  - Native to the place = 1
  - Immigrants = 0
13. Have you ever opt for or studied entrepreneurship during your undergraduate studies?
  - Yes = 1
  - No = 0

14. If yes in 13 above, number of core courses taken \_\_\_\_\_

15. If yes in 13 above, number of elective courses studied \_\_\_\_\_

16. Parents' level of education (Please circle the highest year of school completed):

0                      1 2 3 4 5 6 7    8 9 10 11    12 13      14 15 16          17 18 19 20 21 22 23  
 (No formal educ.) (Primary)    (O'Level)    (A'Level) (College/University)    (Grad. school)

**B: Barriers to business start-up among university graduates in Tanzania**

17. As you were growing up, did you ever seriously thought about setting up your own business? (check only one):

1 = No, never

2 = Yes, briefly

3 = Yes, quite thoroughly

4 = Yes, but I dropped the idea

5 = Yes, I was determined to become self-employed in the future

6 = I do not remember precisely

18. Did you manage to realize your dream of setting up your own business?

1 = No, never

2 = Yes, but the firm did not flourish

3 = Yes, I set up my own business and is flourishing

19. If you had an idea but did not implement it why? (check all that apply)

1 = I got a well paying job of my dream

2 = Lack of initial capital to start business

3 = Too much bureaucratic procedures

4 = Just could not leave my job

5 = Could not get someone whom I can trust to work in my firm

6 = I feared that fees and taxes would be high

7 = Did not get proper information on how to start business

8 = Self-employment is risky, I feared that I may lose my money

9 = I don't have any reason

20. If you never seriously thought about setting up your own business why? (check all that apply):

1 = I always dreamed about getting higher salary

2 = I preferred working as civil servants

3 = Nobody talked about self employment at home as I was growing up

4 = My parents were employees and they preferred me to become employed as well

5 = Just did not get that idea

6 = I don't know

21. Regarding your professional situation in general: You basically work as (check only one):

0 = a clerk

1 = a scientific/technical employee

2 = a manager/executive

3 = an entrepreneur

4 = something else (Specify) \_\_\_\_\_

22. If you have already established your own business, how did you get the idea to start your business? (check all that apply):

1 = It was my own thinking

2 = from my parents

3 = from my guardians

4 = from my spouse

5 = from my sibling

6 = from my colleagues at work

7 = from the classmates

8 = from my teachers, lecturers, etc

9 = from my neighbours

10 = from government agencies

11 = from the websites (specify) \_\_\_\_\_

12 = others (specify) \_\_\_\_\_

23. If you own a firm, how many years have you been in business? \_\_\_\_\_

24. If you do not own a firm but employed, how many years have you been working as employee? \_\_\_\_\_

25. What are the obstacles in your business? (check all that apply):

1 = Unfaithful workers

2 = Ever changing government policies

3 = Thieves/armed robbers

4 = Inflation and depreciation of the Shilling

5 = Climate change

6 = Limited market

7 = Others (Specify) \_\_\_\_\_

26. Which coping strategies do you use to overcome obstacles in 25 above? (check all that apply):

1 = Business insurance

2 = Diversify/have more than one business

3 = Store up the goods until price is encouraging

4 = Produce goods that I can consume

5 = Report to the police in case of theft or unfaithful workers

6 = Others (Specify) \_\_\_\_\_

27. What background skills, knowledge and experiences you feel you are lacking, that could help you perform business better? (check all that apply):

1 = No, I do not think I am lacking any skill

2 = Organisational skills

3 = Managerial skills

4 = Accounting and book keeping skills

5 = Auditing skills

6 = Legal skills

7 = Information and Communication Technology (ICT) skills

8 = Record keeping skills

9 = Others (Specify) \_\_\_\_\_

28. Do you perceive that you can succeed? (check only one):

1 = Yes

2 = No

3 = I am not sure

29. How did you finance your business start-up and/or expansions? (check all that apply):

1 = from family savings

2 = borrowed money from SACCOs/Other Non-Banking financial Institutions

3 = borrowed money from Bank

4 = Inherited business from parents

5 = Inherited cash from parents

6 = Donations from well wishers

7 = Others (Specify) \_\_\_\_\_

30. What do you consider to be barriers for business start-up among university graduates in Tanzania? (check all that apply):

1 = No barriers at all

2 = Limited start-up capital

3 = Lack of government support

4 = Lack of social networking

5 = Lack of business experience

6 = Deficiencies in the university programmes

7 = Fear of failure

8 = Inappropriate teaching methods

9 = Others (Specify) \_\_\_\_\_

### **C: General Enterprising Tendency Test**

In the following Table you are provided with a set of 54 questions. Please indicate the extent you agree or disagree with the statements.



**Table1: GETT**

S/No.	Statement	Agree	Disagree
1	I would not mind routine unchallenging work if the pay is good		
2	When I have to set my own targets, I set difficult rather than easy ones		
3	I do not like to do things that are novel or unconventional		
4	Capable people who fail to become successful have not taken chances when they have occurred		
5	I rarely day-dream		
6	I usually defend my point of view if someone disagrees with me		
7	You are either naturally good at something or you are not , effort makes no difference		
8	Sometimes people find my ideas unusual		
9	If I had to gamble 1000 shillings I would rather buy a lottery ticket than play cards		
10	I like challenges that really stretch my abilities rather than things I can do easily		
11	I would prefer to have a reasonable pay in a job I was sure of keeping rather than higher pay in a job that I might lose if did not perform well		
12	I like to do things in my own way without worrying about what other people think		
13	Many of the bad times that people experience are due to bad luck		
14	I like to find out about things even if it means handling some problems whilst doing so		
15	If I am having problems with a task I leave it and move on to some thing else		
16	When I make plans to do something I nearly always do what I plan		
17	I do not like sudden changes in my life		
18	I will take risk if the chances of success are 50/50		
19	I think more of the present and the past than of the future		
20	If I had a good idea of making some money I would be willing to borrow some money to enable me to do it		
21	When I am in a group I am happy to let someone else take the lead		
22	People generally get what they deserve		
23	I do not like guessing		
24	It is more important to do a job well than to try to please the people		
25	I will get what I want if I please the people who have control over me		
26	Other people think that I ask a lot of questions		
27	If there were a chance of failure then I would rather not do it		
28	I get annoyed if people are not on time		
29	Before I make a decision I like to have all the facts no matter how long it takes		
30	When tackling a task I really need or want help		
31	Success cannot come unless you are in the right place at the right time		

32	I prefer to be quite good at several things rather than very good at one thing		
33	I would rather work with a person I liked, but who was not very good at a job, than work with someone I did not like but was very good at the job		
34	Being successful is the result of working hard, luck has nothing to do with it		
35	I prefer doing things in the usual way rather than trying out new ways		
36	Before making an important decision, I prefer to weigh up the pro's and con's rather than spending a lot of time thinking about it		
37	I would rather work in a task as a member of a team than taking responsibility for myself		
38	I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy		
39	I do what is expected of me and follow instructions		
40	For me getting what I want has little to do with luck		
41	I like to have my life organised so that it runs smoothly and to plan		
42	When I am faced with a challenge I think more about the results of succeeding than the effects of failing		
43	I believe that what happens to me is determined mostly by other people		
44	I can handle a lot of things at the same time		
45	I find it difficult to ask favours from other people		
46	I get up early, stay late or skip meals in order to get special task done		
47	What I am accustomed to is usually better than what is unfamiliar		
48	Most people think I am stubborn		
49	People's failure are rarely the results of their own poor judgment		
50	Sometimes I have so many ideas I don't know which one to pick		
51	I find it easier to relax on a holiday		
52	I get what I want from life because I work hard to make it happen		
53	It is harder for me to adapt to change than keep to routine		
54	I like to start new projects that may be risky		

**Thank you**

**Appendix 2: Checklist for Key Informants**

- (i) Name of the key informant/education/institution/title and responsibilities
  - (ii) Explain the status of unemployment in the country
  - (iii) To what extent the current unemployment status in Tanzania impact university graduates?
  - (iv) Do you think entrepreneurship training can solve the problems of graduate unemployment? If yes how?
  - (v) Explain the status of entrepreneurship training in the country
  - (vi) What do you consider to be barriers for business start-up among university graduates in Tanzania?
  - (vii) What background skills, knowledge and experiences you feel graduates are lacking, that could help them establish their own businesses?
  - (viii) What do you consider to be solutions for the problem of graduate unemployment in Tanzania?
  - (ix) How does the historical antecedent of Tanzania as a command economy explain the current status of entrepreneurship?
  - (x) Do you think the current government efforts will adequately address the challenge of graduate unemployment in the country?
-

**Appendix 3: Answer Sheet for GET Test**

46 A D	37 A D	28 A D	19 A D	10 A D	1 A D
47 A D	38 A D	29 A D	20 A D	11 A D	2 A D
48 A D	39 A D	30 A D	21 A D	12 A D	3 A D
49 A D	40 A D	31 A D	22 A D	13 A D	4 A D
50 A D	41 A D	32 A D	23 A D	14 A D	5 A D
51 A D	42 A D	33 A D	24 A D	15 A D	6 A D
52 A D	43 A D	34 A D	25 A D	16 A D	7 A D
53 A D	44 A D	35 A D	26 A D	17 A D	8 A D
54 A D	45 A D	36 A D	27 A D	18 A D	9 A D

**Appendix 4: GET Test Analysis Sheet**

A. (a) First add up the number of D's circled in the shaded boxes

(b) Then add up the number of A's circle in un-shaded boxes

(c) Then add these two scores together and put the sum against respective rows

Row 1..... Row 2..... Row 3..... Row 4..... Row 5.....

Row 6..... Row 7..... Row 8..... Row 9.....

B. Section 1 (add together the scores for rows 1 and 6) \_\_\_\_\_ (Max. 12, average 9)

Section 2 (row 3 alone) \_\_\_\_\_ (Maximum 6, average 4)

Section 3 (add together the scores for rows 5 and 8) \_\_\_\_\_ (Max. 12, average 8)

Section 4 (add together the scores for rows 2 and 9) \_\_\_\_\_ (Max.12, average 8)

Section 5 (add together the scores for rows 4 and 7) \_\_\_\_\_ (Max.12, average 8)

### Appendix 5: GET Test analysis sheet - Summary

Section	Entrepreneurial Tendency	Number of respondents who scored average and above	Percentage of total respondents
1	Need for achievement Maximum =12 average =9		
2	Need for autonomy and independence Maximum =6 average =4		
3	Creative tendency Maximum =12 average =8		
4	Moderate/calculated risk-taking Maximum =12 average =8		
5	Drive and Determination Maximum =12 average =8		

### Appendix 6: GET Test Interpretation Sheet

#### Section 1: Need for Achievement

Between maximum score=12 and average score=9 one tends to be:

- Forward looking
- Optimistic by nature
- Dedicated to completing the task
- Restless and energetic
- Persistent in pursuing an outcome that suits you
- Self sufficient
- Task oriented
- Results oriented
- Self confident

#### Section 2: Need for Autonomy and Independence

Between maximum score=6 and average score=4 one tends to be:

- A person who likes doing unconventional things
- A person who needs to 'do your own things'
- A person who dislikes orders
- A person who does not bow to a pressure group
- A person who prefers working alone
- A person who likes to make up your own mind
- A person who is stubborn

#### Section 3: Creative Tendency

Between maximum score=12 and average score=8 one tends to be:

- Imaginative and innovative
- Versatile and curious
- Intuitive
- A person who likes novelty and change
- A day-dreamer
- Full of ideas
- A person who likes new challenges

**Section 4: Moderate/Calculated Risk-Taking Propensity**

Between maximum score=12 and average score=8 one tends to be:

- Act on incomplete information
- Assess accurately your own capabilities
- Evaluate probable benefits against probable costs
- Set challenging but attainable goals
- Judge when incomplete data is sufficient
- Be neither over- nor under- ambitious

**Section 5: Drives and Determination Propensity**

Between maximum score=12 and average score=8 one tends to be:

- Take advantage of opportunities
- Make your own luck
- Believe in controlling your own destiny
- Show considerable determination
- Discount fate
- Be self sufficient
- Equate results with effort

**Appendix 7: Profile of Key Informants**

Code	Sex	Highest Education Level	Entrepreneurial Status & Location
Interviewee 1	Male	PhD (Sociology)	Entrepreneur, Dar es Salaam
Interviewee 2	Female	Bachelor of Arts (Political Science)	Entrepreneur, Dar es Salaam
Interviewee 3	Male	Bachelor of Commerce (B.Com)	Entrepreneur, Moshi
Interviewee 4	Male	PhD (Commerce)	Entrepreneur, Dar es Salaam
Interviewee 5	Male	Bachelor of Arts (Sociology)	Entrepreneurship Expert, Dar es Salaam
Interviewee 6	Female	Master of Arts (Development Studies)	Entrepreneur, Dodoma
Interviewee 7	Male	PhD (Commerce - Entrepreneurship)	Entrepreneurship Expert, Dar es Salaam
Interviewee 8	Male	Master of Business Administration (MBA)	Entrepreneurship Expert, Morogoro
Interviewee 9	Male	PhD (Commerce)	Entrepreneurship Expert, Dar es Salaam
Interviewee 10	Female	Bachelor of Commerce (B.Com)	Entrepreneur, Dar es Salaam