

**ENTREPRENEURSHIP EDUCATION, ENVIRONMENTAL  
DYNAMISMS AND ENTREPRENEURIAL PROPENSITY  
AMONG UNIVERSITY STUDENTS IN KENYA**

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**A Thesis Submitted in Partial Fulfilment for the Award of the Degree of  
Doctor of Philosophy in Business Administration (Entrepreneurship  
Option) of Dedan Kimathi University of Technology**



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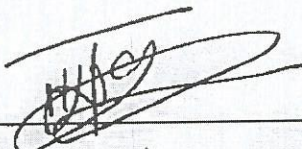
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**DECLARATION**

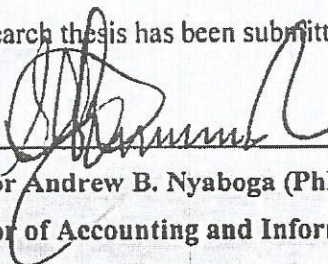
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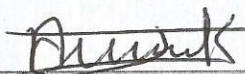
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## DEDICATION

This thesis is dedicated to my late parents for teaching me the art of hand work, my nuclear family for your patience, support, understanding and encouragement that I received from you throughout this research process. You are a blessing in my life.

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Presenting a paper worth called a thesis takes a lot of effort, hard work, patience and God's grace. The process has taught me that with God all things are possible and that whatever you start, endeavour to finish despite the hurdles. I therefore most sincerely thank God for His enabling grace. In this pursuit, I came across different people who contributed a lot in making the journey a success. I want to thank my supervisors Prof Nyaboga and Dr Ithinji for their effort in generating ideas about this thesis. I also most sincerely thank Dr Kenneth Wanjau who assisted me in shaping the ideas in this thesis in a coherent, logical, systematic and comprehensive manner. It was through your wise counsel, guidance, encouragement and support that I made it. I also thank my classmates whom we consulted to make the research a success. Thank you all and God bless you.

## TABLE OF CONTENTS

DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iv
TABLE OF CONTENTS .....	v
LIST OF FIGURES.....	ix
LIST OF TABLES.....	x
LIST OF ACRONYMS AND ABBREVIATIONS .....	xiii
ABSTRACT .....	xv
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
1.1    Background of the Study .....	1
1.1.1    Global perspective of entrepreneurship education.....	4
1.1.2    Kenyan Perspective of Entrepreneurship Education.....	5
1.1.3    Undergraduates students in Kenyan Universities .....	7
1.2    Statement of the Problem .....	8
1.3    General Objective.....	10
1.4    Specific Objectives.....	10
1.5    Hypotheses.....	11
1.6    Justification of the Study .....	11
1.7    Significance of the Study.....	12
1.8    Scope of the Study .....	12
1.9    Limitation of the Study.....	13
1.10    Assumption of the Study .....	13
1.11    Definition of Terms.....	13
<b>CHAPTER TWO.....</b>	<b>17</b>
<b>LITERATURE REVIEW.....</b>	<b>17</b>
2.1    Introduction.....	17
2.1.1    Environmental Dynamism Concept.....	17
2.1.2    Entrepreneurship Education Concept.....	18
2.2    Theoretical Literature .....	21

2.2.1	Experiential Learning Theory.....	21
2.2.2	Human Capital Theory.....	23
2.2.3	The theory of Entrepreneurial Passion.....	24
2.2.4	Risk Bearing Theory.....	25
2.2.5	The Theory of Planned Behaviour.....	25
2.2.6	Shapero and Sokol's Entrepreneurial Event Model.....	27
2.3	Conceptual Framework.....	30
2.3.1	Teaching Methods.....	32
2.3.2	Educators Network.....	33
2.3.3	Entrepreneurship Curriculum.....	34
2.3.4	Entrepreneurial Ecosystem.....	35
2.3.5	Environmental Dynamisms and Entrepreneurship Education.....	37
2.3.6	Entrepreneurial Propensity.....	38
2.4	Empirical Literature.....	40
2.5	Critique of the Existing Literature.....	42
2.6	Summary of the Literature Review.....	48
2.7	Research Gap.....	49

**CHAPTER THREE.....51**

**RESEARCH METHODOLOGY.....51**

3.1	Introduction.....	51
3.2	Research Design.....	51
3.2.1	Causal Research Design.....	52
3.2.2	Qualitative Approach and Quantitative Approach.....	52
3.3	Population of the Study.....	53
3.4	Sample Size and Sampling Procedure.....	55
3.5	Data Collection Instruments.....	56
3.6	Data Collection Procedure.....	58
3.7	Pilot Study.....	58
3.8	Reliability of Data Collection Instrument.....	59
3.8.1	Validity of Data Collection Instrument.....	60
3.9	Measurement and Scaling Technique.....	62
3.9.1	Measurement of the Independent Variables.....	63
3.9.2	Measurement of Moderating and the Dependent Variable.....	64

3.10	Data Processing and Analysis .....	65
3.10.1	Model fit Measurement indices .....	68
3.10.2	Testing for Type I and II Errors.....	70
3.11	Ethical Considerations .....	70
<b>CHAPTER FOUR .....</b>		<b>72</b>
<b>RESEARCH FINDINGS AND DISCUSSION .....</b>		<b>72</b>
4.1	Introduction.....	72
4.2	Response Rate.....	72
4.2.1	Respondents by Gender.....	73
4.2.2	Respondents by Age .....	74
4.2.3	Respondents Operating a Business .....	74
4.2.4	Respondents whose parents are Entrepreneurs.....	75
4.2.5	Respondents Pursuing Entrepreneurship.....	76
4.2.6	Respondents by Need Change to another Course.....	78
4.2.7	Respondents by Appreciation of Taking Entrepreneurship Course .....	79
4.3	Descriptive Analysis of Entrepreneurship Teaching Method.....	80
4.4	Analysis for Educators Network and Entrepreneurial Propensity .....	87
4.5	Descriptive Analysis of Entrepreneurship Curriculum .....	93
4.6	Descriptive Analysis of Entrepreneurial Ecosystem.....	104
4.7	Descriptive Analysis of Environmental Dynamism.....	109
4.8	Descriptive Analysis of Entrepreneurial Propensity .....	115
4.9	Data Analysis and the Results of the study Variables.....	120
4.9.1	Confirmatory Factor Analysis .....	121
4.9.2	Exploratory Factor Analysis.....	121
4.10	Confirmatory Structural Model and Hypotheses Testing.....	124
4.10.1	Teaching Methods and Entrepreneurial Propensity.....	124
4.10.2	Educators Network and Entrepreneurial Propensity.....	132
4.10.3	Entrepreneurship Curriculum and Entrepreneurial Propensity .....	139
4.10.4	Entrepreneurship Ecosystem and Entrepreneurial Propensity .....	146
4.11	Moderation by Environmental Dynamism .....	163
4.11.1	Moderated Multiple Regressions for Teaching Methods.....	163
4.11.2	Moderated Multiple Regressions for Educators Networks .....	166
4.11.3	Moderated Multiple Regressions for Entrepreneurship Curriculum .....	168

4.11.4	Moderated Multiple Regression for Entrepreneurial Ecosystem .....	171
4.12	Summary of Hypothesis Testing Results .....	174
<b>CHAPTER FIVE .....</b>		<b>176</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>		<b>176</b>
5.1	Introduction.....	176
5.2	Summary of Findings .....	176
5.2.1	Influence of Teaching Method and Entrepreneurial Propensity.....	176
5.2.2	The Influence of Educators Network and Entrepreneurial Propensity .....	177
5.2.3	Entrepreneurship Curriculum and Entrepreneurial Propensity .....	178
5.2.4	Entrepreneurial Ecosystem and Entrepreneurial Propensity .....	178
5.2.5	Moderating Independent and Dependent Variables.....	179
5.3	Conclusion .....	180
5.4	Recommendations .....	185
5.5	Areas of Further Research .....	189
<b>REFERENCES .....</b>		<b>190</b>
<b>APPENDICES .....</b>		<b>206</b>
APPENDIX I: Introduction and Authorization Letters .....		206
APPENDIX II: Questionnaires .....		208
APPENDIX III: Normality Test for all the Variables .....		215
APPENDIX IV: KMO and Bartlett's Test of Sphericity for the Constructs.....		216
APPENDIX V: Convergent Validity of outer model .....		217
APPENDIX VI: Reliability and average variance extracted (AVE).....		219



## LIST OF FIGURES

Figure 2.1: Theory of Planned Behaviour Model .....	27
Figure 2.2: Shapero & Sokols Entrepreneurial Event Model .....	29
Figure 2.3: Conceptual Framework .....	31
Figure 2.4: Entrepreneurial Ecosystems .....	37
Figure 4.1: SEM for Hypothesised Testing of Teaching Methods.....	126
Figure 4.2: Significance Test Results of Teaching Methods .....	128
Figure 4.3 SEM for the Moderated Teaching Methods Model.....	131
Figure 4.4: SEM Hypothesised for Educator's Network.....	133
Figure 4.5: Significance Test Results for Educator's Network.....	135
Figure 4.6: SEM for Educators Network Moderated Model .....	139
Figure 4.7: SEM for the Hypothesized Entrepreneurship Curriculum.....	141
Figure 4.8: Test Significant Results for Entrepreneurship Curriculum.....	143
Figure 4.9: SEM for Entrepreneurship Curriculum Moderated Model .....	145
Figure 4.10: SEM for Entrepreneurial Ecosystems' and Entrepreneurial Propensity.....	147
Figure 4.11: Significance Test Results for Entrepreneurship Ecosystem.....	149
Figure 4.12: SEM for the Moderated Relationship Model .....	152
Figure 4.13: Overall Regression SEM.....	156
Figure: 4.14 Confirmatory factor analyses for overall SEM .....	161
Figure: 4.15: Statistical Significant Values for Moderated Overall SEM .....	162

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## LIST OF TABLES

Table 3.1: Universities Offering Bachelors in Business Entrepreneurship.....	54
Table 3.2: Sampling Procedure for the Population .....	56
Table 3.3: Reliability analysis.....	61
Table 4.1: Distribution by Respondents Gender .....	73
Table 4.2: Distribution of Respondents by Age.....	74
Table 4.3: Distribution of Respondents in a Business.....	75
Table 4.4: Distribution of Respondents whose Parents are Entrepreneurs.....	76
Table 4.5: Distribution of Choice to Pursue Entrepreneurship Course .....	78
Table 4.6: Distribution by Need to Change to another Course.....	78
Table 4.7: Distribution by Appreciation of taking the course.....	79
Table 4.8: Results of Teaching Method.....	81
Table 4.9: Results of Preparedness to Start a Business .....	82
Table 4.10: Results of Innovativeness acquisition .....	83
Table 4.11: Results of Innovation Competitions Exposure .....	84
Table 4.12: Results on Support for Innovative Business Ideas.....	85
Table 4.13: Distribution of the Assessment on Entrepreneurship Teaching Methods.....	87
Table 4.14: Results on Educators Network.....	88
Table 4.15: Results on Respondents Attachment Assistance .....	89
Table 4.16: Results from Respondents' on Guest speakers.....	90
Table 4.17: Results on Educators Social Networks Assessment .....	91
Table 4.18: Results on Self-Employment upon Graduation .....	92
Table 4.19: Results on Ability to Write a Business plan.....	94
Table: 4.20: Results on the Assessments to Write Business Plan.....	96
Table 4.21: Distribution of Exposure to Case Studies.....	97

Table 4.22: Results of Exposure to Case Studies.....	98
Table 4.23 Distribution of Acquisition of Entrepreneurship Knowledge and Skills .....	99
Table 4.24: Results on Extent of Knowledge and Skills Acquisition .....	101
Table 4.25: Results on Review of Entrepreneurship Curriculum .....	102
Table 4.26: Results on Creativity and Innovation.....	103
Table 4.27: Respondents on Surrounding Business .....	105
Table 4.28: Respond Distribution on Government Policies .....	106
Table 4.29: Distribution Response on Communities around .....	107
Table 4.30: Results on the Assessment of Government Policies .....	109
Table 4.31: Response on Technology and Entrepreneurship growth.....	111
Table 4.32: Results on Technology and Economic Development .....	111
Table 4.33: Distribution on Market Changes.....	112
Table 4.34: Results on Market Change and Entrepreneurship Propensity .....	114
Table 4.35: Results on Globalization and Entrepreneurship propensity .....	115
Table 4.36: Results on Self-Efficacy.....	117
Table 4.37: Results on Desirability and Entrepreneurial Propensity .....	118
Table 4.38: Results on Feasibility and Entrepreneurship propensity .....	120
Table 4.39: Results on Discriminate Validity for Second Order Constructs.....	124
Table 4.40: Model fits Between Teaching Methods and Entrepreneurial Propensity.....	125
Table 4.41: Regression Weights for Teaching Methods on Entrepreneurial propensity...	126
Table 4.42: Model Fits for the Moderated Model for Teaching Methods.....	129
Table 4.43: Regression Weights for the Moderated Teaching Methods Model .....	131
Table 4.44: Model Fits for Educator's Network and Entrepreneurial Propensity .....	132
Table 4.45: Regression weights for educator's network and Propensity.....	133
Table 4.46: Fitness Indices for Educators Network Moderated Model.....	136

Table 4.47: Regression Weight for Educators Network Moderated Model .....	139
Table 4.48: Model Fits for Entrepreneurship Curriculum Moderated Model.....	140
Table 4.49: Regression Weight for Entrepreneurship Curriculum Moderated Model.....	141
Table 4.50: Fitness Indices for Entrepreneurship Curriculum Moderated Model .....	144
Table 4.51: Regression Weight for Entrepreneurship Curriculum Moderated Model.....	145
Table 4.52: Fitness Model for Entrepreneurship Ecosystem and Propensity .....	146
Table 4.53: Regression Weight for Entrepreneurship Ecosystem.....	147
Table 4.54: Goodness of Fit for Entrepreneurial Ecosystem Moderated Model .....	150
Table 4.55: Regression Weight for Entrepreneurial Ecosystem Moderated Model.....	152
Table 4.56: Model Fitness Indices for the Overall SEM .....	153
Table 4.57: Regression Weights for the Overall SEM .....	155
Table 4.58: Overall Fitness for SEM with Moderation .....	157
Table 4.59: Regression Weights for Overall Moderated SEM .....	160
Table 4.60: Moderated Effect of Teaching Methods and Entrepreneurial Propensity.....	164
Table 4.61: Moderated Multiple Regressions for Educators Network.....	166
Table 4.62: Moderated Multiple Regressions for Entrepreneurship Curriculum .....	170
Table 4.63: Moderated Multiple Regression for Entrepreneurial Ecosystem.....	172
Table 4.64: Hypotheses Testing Results.....	175

## LIST OF ACRONYMS AND ABRREVIATIONS

<b>AACSP</b>	American Assembly of College Schools of Business
<b>ANOVA</b>	Analysis of Variance
<b>DBSC</b>	District Business solution
<b>DV</b>	Dependent Variable
<b>EC</b>	European commission
<b>ED</b>	Environmental dynamisms
<b>ED</b>	Environmental Dynamisms
<b>END</b>	Entrepreneurship education
<b>END</b>	Entrepreneurship education
<b>EU</b>	European Union
<b>GDP</b>	Gross domestic product
<b>GDP</b>	Gross domestic product
<b>GEM</b>	Global enterprise monitor
<b>GNP</b>	Gross National product
<b>RoK</b>	Republic of Kenya
<b>IBM</b>	International Business machines
<b>ILO</b>	International labour
<b>ILO</b>	International labour report
<b>IV</b>	Independent Variable
<b>JAB</b>	Joint admission Board
<b>MO</b>	Environmental dynamisms
<b>MSEs</b>	Medium and Small Enterprises
<b>NFI</b>	Normed Fix Index
<b>NIP</b>	National implementation plan

<b>RMS</b>	Root mean squared
<b>SEM</b>	Structural equation Model
<b>SMEs</b>	Small and medium Enterprises
<b>SPSS</b>	Statistical package of social Science
<b>SRMR</b>	Standard Root mean squared
<b>SSHG</b>	Sambut self help group
<b>SSP</b>	Self sponsored programme
<b>UNDP</b>	United Nations Development projects
<b>UNIDO</b>	United Nations Industrial Development Organizations
<b>VIF</b>	Variance inflation factor

## ABSTRACT

The purpose of this study was to establish the moderation between environmental dynamisms and entrepreneurship education in inculcating entrepreneurial propensity among University students in Kenya. The study has shown that environmental dynamism moderates entrepreneurship education and entrepreneurial propensity. Universities can benefit from adapting to environmental dynamisms in their quest to teach entrepreneurship and create employment for entrepreneurship grandaunts. Globalization, market changes and technology leads to market imperfections leading to the formation entrepreneurial opportunities. Entrepreneurial dynamisms lead to entrepreneurial propensity facilitating a change in attitude and resulting to a behavioural change towards entrepreneurship. The study tested the null hypotheses, teaching method, educators' network, entrepreneurship curriculum and entrepreneurial ecosystem no relationship with entrepreneurial propensity among entrepreneurship University students in Kenya and the null hypothesis that environmental dynamism does not moderate between entrepreneurship education and entrepreneurial propensity among University students in Kenya. Realism philosophy approach was used and a mixed method research design was adopted in the study. Experiential, Human capital, entrepreneurial passion and planned behaviour were theories upon which the study was based. The target population for the study were University students who were in their fourth year of study. A simple random method was used for data collection. A self administered, semi structured questionnaires was used to collect primary data while the secondary data was obtained from published sources such as library, internet and research done by other scholars. The questionnaire was tested for validity and reliability. Quantitative and qualitative techniques were used to analyze the collected data with the assistance of Statistical Package for Social Sciences (SPSS) software, and Smart Pls software. Analyses were conducted using a two- phase process consisting of confirmatory measurement model and confirmatory structural model. Also moderated multiple regression (MMR) analysis was carried out by comparing ordinary least squares (OLS) regression model and MMR model. For Goodness of fit, RMS theta, NFI and SRMSR were the software used to test the fitness indices. The study found that teaching methods, educators' network, entrepreneurship curriculum and entrepreneurial ecosystem were individually significant predictors of entrepreneurial propensity with entrepreneurial ecosystem being the strongest predictor out of the three. The result also revealed that environmental dynamisms (ED) significantly moderated the relationship between entrepreneurship education and entrepreneurial propensity. Overall, the study demonstrated a positive relationship between environmental dynamism and entrepreneurial propensity. The study recommended a review of the methods used to teach entrepreneurship and the educators' network enhanced. The curriculum forms the basis for educator networks and teaching method hence the study recommended a review of entrepreneurship curriculum by curriculum developers. The study also recognized the important role played by entrepreneurial ecosystem hence the need to create an enabling ecosystem for entrepreneurship development. The study recognized that entrepreneurs operate under uncertainties in the environment hence the need to be proactive if an entrepreneurial propensity is to be inculcated among University students in Kenya. The study did not follow up with respondents who indicated that they were inclined toward entrepreneurship really became entrepreneurs. This was left as a gap for future research.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

The concept of who an entrepreneur is and what is entrepreneurship has existed since the 16<sup>th</sup> century. The word entrepreneur was used to refer to those people who engaged in military expeditions in the early 16<sup>th</sup> century (Khanka, 2000). In the 17<sup>th</sup>, the term entrepreneur was used to refer to civil engineers who were engaged in construction activities. It was not until the 18<sup>th</sup> century that the word entrepreneur was viewed from an economic point (Khanka, 2000). It is believed that Richard Cantillon was the first person to use the word entrepreneur. From His point of view, an entrepreneur was a risk taker, an individual who bought goods at a certain price to later resell them at uncertain price hence operating at a risk (Khanka, 2000).

Entrepreneurship is not only associated with the development of technical innovation and commercial application but also the growth of employment and competitiveness as well (Nystrom, 2008). Academic studies and economic policies have related with entrepreneurial activity with economic growth for over two decades now (Lina, 2011). Previous studies have revealed the contribution of entrepreneurship on economic growth and development of any nation (Ma'rio, 2010) especially in higher income Nations (Linana, 2011). The Global Entrepreneurship Monitor emphasized that individual with limited education are unlikely to participate in entrepreneurial activities (Reynolds, 2001). It can be deduced that getting adequate and proper education plays an important role in propelling entrepreneurial propensity among University students (Turk & Selcuk, 2009). Entrepreneurship has been recognized as the engine that drives economies and societies in many nations (Albert, 2004).



It is due to such recognition that Scholars and policy makers have seen the importance of embracing entrepreneurship in the education system (Albert, 2004).

Shigeru Fijii is the person who pioneered the concept of entrepreneurship education. It was first taught at Kobe University in Japan in 1938 (Fayolle, 2009). For entrepreneurship education to be effective, it should aim at fostering entrepreneurial attitudes, skills and a mindset that covers a wide range of aspects that would include the generation of business ideas, how to start a business and enhance economic growth and innovation (Fayolle, 2009). In the mid 1940s and 1949 courses in small business management began to emerge. It was first started by Myles Mace in USA at Harvard Business School (Fayolle, 2009). Half a century later the phenomenon gained more universal recognition (Alberti, 2004).

Currently, entrepreneurship is taught at nearly every American Assembly of College Schools of Business (AACSB) and other accredited institution. It is taught in over 1400 post secondary schools in the United States of America. (Honing, 2004). Despite the growth in the number of universities offering entrepreneurship courses, different opinions still abound on whether entrepreneurship can be taught or not. The question on whether entrepreneurs are born or made still fills discussions in international journals as well as in conferences held all over the world. There is a group of scholars which argue that it is not possible to teach entrepreneurship. They view entrepreneurship as a matter of personality and psychological characteristics. Some have argued that talent and temperament cannot be taught (Fayolle, 2008). On the other hand, there are those who argue that certain facets of entrepreneurship can be taught (Kuratko, 2003). Disciplines' such as law, medicine and engineering are taught yet there are doctors, lawyers and engineers who are talented yet others are not.

This argument can as well be adopted for entrepreneurship and entrepreneurs and still hold water (Hindel, 2004). Teaching entrepreneurship can be viewed as both art and a science (Jack & Anderson, 1998). It is considered a science because it relates to the functional skills which are basically required for business start-up (it is this part of entrepreneurship that appears to be teachable).

It is also viewed as an art because of its creative aspects. , those are the aspects of entrepreneurship which are explicitly not teachable. Nevertheless, there is a unanimous agreement among entrepreneurship scholars that there needs to be a shift of emphasis of entrepreneurship education from the scientific perspective to the artistic and creative perspective of teaching entrepreneurship. Even though the focus of many entrepreneurship courses and training lies in the scientific dimension of entrepreneurship, entrepreneurship education helps to ignite the artistic, creative as well as perceptual aspects of entrepreneurship. (Lee, 2007)

Entrepreneurship education covers a wide variety of objectives, contents as well as pedagogical methods (Fayolle, 2008). The main cited objectives of entrepreneurship education by previous studies includes skills acquisition, techniques used to analyse business situations, synthesis of action plans, stimulation of entrepreneurial drive, how to undo the risk-adverse bias, developing empathy and support for the unique aspects of entrepreneurship, reviewing attitudes towards change, in order to encourage new business start-ups, and how to stimulate 'affective socialization element' among entrepreneurs (Alberti 2004). Fayole (2007) suggests that the objectives of entrepreneurship education may be classified into three categories. These categories are stipulated as raising awareness, teaching techniques as well tools on how to handle situations and supporting project owners (Fayolle, 2007).

In general, entrepreneurship education may be viewed as a discipline that increases awareness of entrepreneurship as a career option, consequently enhancing the understanding of the process that is involved in initiating and managing new business venture (Lee, 2004).

### **1.1.1 Global perspective of entrepreneurship education**

It is due to the realization of the importance of entrepreneurship when in its contribution to economic growth that entrepreneurship education has become an area of interest. This can be supported by the substantial increase in the number of courses that are offered in the institutions of higher learning (Kuratko, 2007). Over the past 20 years, 2000 courses have been offered in the 1500 schools in the United States (Kuratko, 2007). In China for instance, the universities have given a lot of attention to entrepreneurship education. The central education for China decided to require universities to provide entrepreneurship courses such as small business management, new venture creation, industry management and corporation management (Weber, 2014). The government of China hopes that such a progress would address the unemployment problem that the county is currently facing (Weber, 2014). Middle East countries have also recognized the role that entrepreneurship education plays and as a result has established incubators and entrepreneurship centres that are vital in motivating students into entrepreneurship (Weber, 2012). In Nigeria, developing entrepreneurial skills among its citizen is an objective in its 2020 vision (National Implementation plan) NIP, (2010). In Nigeria, entrepreneurship education is taught as part of the prerequisite for graduation. The aim of adopting entrepreneurship education in the post secondary institutions was to equip graduates to become self reliant in order to achieve faster economic development in the country (Effiong & Ele, 2012).

Such a background is an indication that entrepreneurship plays a big role, not only to the individual undertaking it, but to the society as well as to the country as a whole.

### **1.1.2 Kenyan Perspective of Entrepreneurship Education**

Since 1963, the Kenyan Government has been addressing the many challenges facing the education sector. This has been addressed through formation of commissions, committees and taskforces (Ominde Report 1964; Sessional paper No: 10 of 1965 and Mackay Report, 1981). The purpose of the formed commissions and committees was to reform the education system that was inherited from the colonial Government so that Kenya can address its problem from its indigenous. There has been transformation of higher education and training in Kenya in the recent past (Kinyanjui Report, 2006; Some 2012) notwithstanding the national strategy for University education in Kenya.

Currently, there are 30 ( thirty) universities in Kenya having increased from 23 in 2015 to 30 in 2016 after granting charter to seven University colleges to full University status (Economic Survey, 2017). Public universities have 286,840 male and 192,472 female, while private universities has 43,547 male students and 41,645 female giving a grand total of 564, 507 (Economic Survey, 2017). Kenya is traditionally known for educating students to get employment in the public sector and the established Kenyan firms. Consequently, there has been less focus on enabling University graduates to focus on becoming entrepreneurs in future. With rapid change of economic and social conditions in Kenya, it is becoming increasing evident that entrepreneurship is the gap between the current and desired levels of economic growth.

In tandem with increased numbers of University graduates pouring into the job market every year and in cognizance of the critical role of entrepreneurship in creating job opportunities for the graduates, entrepreneurship programmes have become a function of the universities. Many universities have included entrepreneurship courses in their education curriculum spinning across several fields of specialization. Bearing in mind that entrepreneurship courses are developed to encourage entrepreneurial behaviour, understanding the students' propensity to choose self-employment as a career is critical in this study. The critical question has been not just 'how to learn' but also 'how to teach' entrepreneurship (Fayolle & Khandit, 2006) and this has, till now a continues quest in research.

The International labour report (ILO) of 1972 created awareness on the need to focus more on entrepreneurship. The findings indicated that Kenyans lacked an entrepreneurial culture and those who operated businesses, their business were informal and petty trading, International Labour Organization (ILO), 1972). The Government development several development plans that aimed at inculcating an entrepreneurial culture among Kenyans which ran from 1979-1998 development plan (Gok, 1999). In 2005, a Sessional paper was developed. The paper advocated that all students in the institutions of higher learning should take a unit in entrepreneurship (Sessional Paper, 2005).

The importance of improving education level of Kenyans within the context of poverty reduction and economic growth is something that the Kenyan Government recognizes very well (RoK, 2005). The Government recognizes that unemployment is a major problem facing Kenya today (RoK, 2006).

Creating an entrepreneurial activity and growth in Kenya and enterprise growth can be attained by creating an entrepreneurial culture among the Kenyan University students (Nelson & Mburungu, 2002). This is specifically important as focusing the students as soon as they leave the University may provide a long lasting solution to the problem of unemployment. University students are trained to be employment seekers as opposed to job creators. In spite of this puzzle entrepreneurship studies have paid little attention to entrepreneurial propensity, beliefs and values of entrepreneurship. Facilitating entrepreneurship interest among students in Kenyan universities is one of the ways to address youth unemployment (Maina, 2006). Despite the career guidance through entrepreneurial courses for undergraduates, some of them are taking longer time to secure a job after graduation (Maina, 2006).

### **1.1.3 Undergraduates students in Kenyan Universities**

Employability of University graduates as well as their ability to start new ventures to enable them employ other Kenyans and at the same time contribute to the Countries economic well being are quite important to the mission of the University education system in Kenya. There is sufficient support that reveals that University students can be used as appropriate subjects in research on entrepreneurial propensity and behaviour (Khera & Benson, 1970, Krueger, Rally and Carsrud, 2000) thus; they are well positioned for the purpose of this study.

The Government sponsored students through the public universities and the Joint admission Board (JAB) and those in self sponsored programme (SSP) are considered important in this study for various reasons.

One, they comprise a culturally diverse group selected from all over the Country with due consideration of affirmative action in regard to gender composition. On the other hand, they constitute a dynamic age group (Early to mid twenties) in which the study of propensity towards entrepreneurship is desirable. Students samples have been successfully used in previous research by growth among others, Krueger, Reilly and Carsrud 2000). Studies have revealed that at this age, career related decisions are paramount (Harvey & Evans, 1995). Such a group are unlikely to have any substantial prior business experience as all of them are admitted directly after secondary school. It is the above mentioned aspects that render students a relatively homogenous group that allows examination of entrepreneurial process prior actual self-employment of paramount importance.

## **1.2 Statement of the Problem**

It is important that young people are integrated in the labour market upon graduation so that the many negative consequence of graduates' unemployment is reduced as much as possible. Young people in Kenya account for more than 35 % of the total national population, of which 67% are the country's unemployed workforce (Otieno, 2016). 1-2 graduates are still unemployed and only 1 in every 5 youth with University degrees are self employed. Both public and private universities in Kenya churned out about 50,000 graduates every year. This number continues to pile into the number of the youths in Kenya who are unemployed estimated to be approximately 2.3 million ( RoK, 2016). The introduction of entrepreneurship education in Kenya in 2005 was to address the issue of unemployment. The Government of Kenya viewed entrepreneurship education as a tool that can be used to address the unemployment problem, nevertheless, the problem seem to be escalating (Otieno, 2016).

This results to the many problems that come as a result of unemployment such as, increased poverty rates, deskilling, social exclusion, and lack of motivation as well as mental health problems. It is due to lack of employment fresh graduates often find themselves trapped in a vicious cycle. Fresh Graduates have not had an opportunity to get experience which is mainly sought by many employers which often prevents them from getting employed. Not being employed causes cultural and social isolation.

It is as a result of feeling isolated that the youths in Kenya become prone to joining illegal groups that have become a big problem in Kenya. Studies have also revealed that unemployment among the youth is also associated with an increase in drug and alcohol abuse, high level in crime, rape cases as well as early pregnancies which all can be attributed to unemployment.

An increased level of graduate unemployment has a negative effect on the economic growth as well as the productivity of a Nation. Kenya for instance is at a risk of losing talent and skills. This is because a great number of University graduates are unemployed and therefore they cannot put their knowledge and capabilities into producing innovation and contributing to the country's economic growth. A large number of unemployed workforce leads to reduced productivity and less gross domestic product (GDP) (World Bank, 2015). As a result, the country gets less in form of GNP which can only be improved if more people are working hence contributing to the general economic growth of a Nation. Mkala & Wanjau (2013) researched on transforming implementation of entrepreneurship education programme in technical training institutions in Kenya. Ngugi, Gakure, Waithaka & Kiwara (2012) conducted a study on the application of Shapiro's model in explaining entrepreneurial intentions among University students in Kenya.



There are some local studies that have been carried out in the area of entrepreneurship education and entrepreneurial propensity. Mungai (2013) conducted a study on social cultural factors and entrepreneurial intentions among undergraduate students in public Universities in Kenya. Obiero (2015) studied on factors influencing entrepreneurship among University students in Kisumu County. Kimondo & Njogu (2012) studied on investigating University students habits towards entrepreneurial in Kenya, a case among Kenyatta University students. This shows the existence of knowledge gap in the role of entrepreneurship education and inculcating entrepreneurial propensity among University students in Kenya.

### **1.3 General Objective**

The purpose of this study was to establish the relationship between entrepreneurship education and environmental dynamisms in inculcating entrepreneurial propensity among entrepreneurship students in Kenyan Universities.

### **1.4 Specific Objectives**

- i. To determine the relationship between entrepreneurship teaching methods and entrepreneurial propensity among entrepreneurship University students in Kenya.
- ii. To establish the relationship between educators' network and entrepreneurial propensity among entrepreneurship University students in Kenya.
- iii. To assess the relationship between entrepreneurship curriculum and entrepreneurial propensity among entrepreneurship University students in Kenya
- iv. To determine the relationship between entrepreneurial ecosystem and entrepreneurial propensity among entrepreneurship University students in Kenya.
- v. To establish the moderation between environmental dynamisms and entrepreneurship education in inculcating entrepreneurial propensity among University students in Kenya.

## 1.5 Hypotheses

Based on the specific research objectives, the study examined the following null hypothesis

**H<sub>01</sub>:** There is no relationship between entrepreneurship teaching methods and entrepreneurial propensity among University entrepreneurship students in Kenya

**H<sub>02</sub>:** There is no relationship between educators' network and entrepreneurial propensity among University entrepreneurship students in Kenya.

**H<sub>03</sub>:** There is no relationship between entrepreneurship curriculum and entrepreneurial propensity among entrepreneurship University students in Kenya

**H<sub>04</sub>:** There is no relationship between entrepreneurial ecosystems and entrepreneurial propensity among University entrepreneurship students in Kenya.

**H<sub>05</sub>:** Environmental dynamisms do not moderate the relationship between entrepreneurship education and entrepreneurial propensity among University entrepreneurship students in Kenya.

## 1.6 Justification of the Study

Kenyan economy can greatly benefit from the 50,000 graduates who are churned out of the University every year. Studies reveal that economic development of any Country is made possible by proper utilization of its human capital. Having been through a formal learning, it means such students would perform businesses differently from ordinary people, would be more creative and even apply tools such as business plan to ensure business success. If Kenya is to achieve its well stipulated Vision 2030, then proper utilization of entrepreneurship students in job creation is of paramount importance.

### **1.7 Significance of the Study**

The findings in this study will greatly benefit the students pursuing entrepreneurship course. It may be a wakeup call in helping them question their preparedness in self employment upon graduation. Students will see the need to be well prepared in creating jobs as opposed to seeking job upon completion of their studies. The study is also important in enabling the government to understand whether the long sought solution of unemployment is being addressed by entrepreneurship education in the higher institutions of learning in Kenya. The policy makers might consider reviewing the policy already implemented on entrepreneurship Education. The curriculum developers may also benefit from this research findings as it may enable them review the current entrepreneurship curriculum. The world of academicians can benefit from the findings of this research as the lecturers might want to review their teaching methods and strengthen their social networks. The universities would also benefit from the findings in this study from the recognition that the ecosystems play a role in achieving the long sought objective of inculcating entrepreneurial propensity among entrepreneurship students. The study has left gaps for further research.

### **1.8 Scope of the Study**

The study analyzed entrepreneurial propensity among universities students in fourth year taking a degree in entrepreneurship. The study covered 2016/2017 academic year. The Scope of this study was students from Kenya Methodist University , Jomo Kenyatta University , Kisii University , Egerton University , Moi University , Meru University , Kirinyaga University and Karatina University since this were the institutions with fourth year students taking a Bachelor of Science in entrepreneurship.

### 1.9 Limitation of the Study

The study focused on propensity. It is clear that propensity may not turn into actual behaviours in the future. This means that even if a respondent stated a high entrepreneurial propensity, he/she may choose a completely different career path in future. This is common problem in almost all studies in the literature. Unfortunately, there is no other accurate way to measure the tendency of entrepreneurship. Students taking other business related courses yet have a high chance of engaging in entrepreneurial activities were not considered in this study. Despite the fact that the study assured the respondent of confidentiality, the study was limited on how truthful the respondent answered the questions. Institutions that offered entrepreneurship degree and had no fourth year group were left out in this study. This means that the study did not capture the entrepreneurial propensity of students in such institution due to the fact that they had not reached their fourth year of studies.

### 1.10 Assumption of the Study

This study was carried out on the assumption that the sample taken was a representation of the population. The data collection instrument was assumed to be valid and that it was able to measure what it was intended to measure. Another assumption is that the respondent answered the questions correctly and truthfully.

### 1.11 Definition of Terms

**Entrepreneurship:** It is the dynamic process of creating incremental wealth. This wealth is created by individual who assume the major risks in terms of equity, time or career commitment of providing value for some products or services.

The products or services may or may not be new or unique but value must somehow be infused by the entrepreneur by allocating the necessary resources and skills (Ronstadt 1984: 28). It can also be defined as the Practice of starting new organization or revitalizing mature organizations particularly new business in response to identified opportunities. It is about taking risks (Peter Drunker, 1970).

**Entrepreneur:** Is an individual who exploits market opportunities through technical or organizational innovation (Frank H. Knight 1921). A person who habitually creates and innovates to build something of recognized value around perceived opportunities (Botton & Thompson, 2000). Someone who actually searches for change responds to it and exploits change as an opportunity (Peter Drunker, 2005).

**Entrepreneurship Education:** Entrepreneurship education refers to specialized knowledge that inculcates in learners the traits of risk-taking, innovation, arbitrage and co-ordination of factors of production for the purpose of creating new products or services for new existing users within human communities. It is the process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them (Mauchil *et al.*, 2011). Factors that help the youth to understand and cultivate entrepreneurial attitudes (Gorman *et al.*, 1997, Kourilsky & Walstad, 1998).

**Self-employment:** Refers to persons who work in their own business, professional practice or firm for the purpose of earning a profit. It is also referred to as business ownership (Braunerhjelm, 2010).

**Environmental dynamisms:** Environmental dynamisms describe the rate and unpredictability of changes in a firm's external environment (Dess & Beard 1984). It is a speed of product changes, the changing frequency of customer preference and operational environment (Milliken, 1987).

**Entrepreneurial Ecosystem:** Is a set of interconnected entrepreneurial actors either existing or potential. They include entrepreneurial organization such as firms, financing institutions, universities, public sector agencies and also entrepreneurial process such as start-up enterprises, firms that highly connect either formally or informally, those that govern the performance within the local entrepreneurial environment (Rosted, 2012). Ecosystems are the interconnected entrepreneurial actors that can either positively or negatively affect enterprise performance (Rosted, 2012).

**Entrepreneurial passion:** Strength and courage (Bierly *et al.*, 2000). Mobilizing energy, unflagging pursuit of challenging goals (Smilor, 1997). Drive, tenacity, willingness to work long hours, courage, high level of initiative and persistence in face of obstacles (Bierly *et al.*, 2000; Bird, 1989).

- Self-efficacy:** It is one's judgement of ability to execute an action (Bandura, 1986). Is the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship (Chen *et al.*, 1998). It is acquired gradually throughout the improvement of complex, cognitive, social linguistic and physical skills obtained through experience (Bandura, 1983: 118)
- Desirability:** Degree of attraction an individual perceives towards a specific behaviour (intrapersonal and extra personal) (Krueger & Brazeal 1994; Krueger *et al.*, 2000).
- Feasibility:** Refers to the extent to which an individual feels personally capable of starting a business or performing the task (Krueger, 1993).
- Propensity:** Personal disposition to act on one's decisions. (Bateman & Crant, 1993; Krueger, 1993).
- Theory:** Is a set of systematic interrelated concepts, definitions and propositions that are advanced to explain and predict phenomena (Cooper & Schindler, 2011).
- Variable:** A concept that can take different quantitative values. (Kothari, 2009). Mugenda (2008), on the other hand defines a variable as a measurable characteristic which assumes different values among units of population.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

Chapter two has covered the environmental dynamism concept, empirical literature as well as theories relevant to the area of study. A conceptual framework has also been developed. The critique of the existing literature, research gaps and a summary of the empirical literature has also been covered in this chapter.

##### 2.1.1 Environmental Dynamism Concept

Environmental dynamism is the frequent changes that occur in the environment. Wijbenga and Van Witteloostuign (2007), it is the rate at which the preference of customers and the services of organisations change over time. An act of entrepreneurship can ameliorate a constraint rather than being limited by it Rammel, ( 2003). One of the ways in which this can be attained is by shifting resources, substituting resources. This would include adopting new technologies changing business models in order to bear on the problems. It may also include coming up with new forms of contracts in organization Rammel, (2003). Environmental constraint can be a function of an incentive within which entrepreneurial agents can see business opportunities.

A study by Zapalska (2003) revealed that various environmental factors affected entrepreneurs of New Zealand. Ullah (2011) in his study he emphasized that both environmental dynamisms and environmental heterogeneity are significant predictors of entrepreneurial orientation and that it has a positive effect on entrepreneurial propensity.

Jalali (2012), in his study, found that environmental determinants affected risk taking and innovativeness which are considered as basic dimensions of entrepreneurial propensity.



Gul (2011) affirms that environmental dynamism has a positive effect on firm performance. Economic evolution that is associated with creative destruction dominates the slow evolutionary dynamics of the ecosystem which consequently weakens its resilience (Gual and Norgaard 2010). Metcalfe (1998) confirms that the knowledge base of the economic order is ever changing rapidly.

Environmental dynamisms capabilities influence how new ventures are created and shape its resource position and capabilities which affect the new business performance (Zott 2003). Jantunen (2005) analyzed the relationship between entrepreneurial propensity and internationalized performance. The findings revealed that environmental dynamics has a great effect on international firm performance (Jantunen, 2005). Environmental dynamisms are helpful to leverage entrepreneurial resources to benefit start-up businesses (Wu, 2007).

A study by Teece (2007) revealed that new ventures rely on environmental sensing capabilities and response capabilities so that they may dynamically adapt to a new complicated environment. New ventures achieve knowledge from the environment, configure it and integrate its operational capabilities at the end of it they internally change and effectively respond to new market demand and consequently realize the dynamic match between internal resources and external environment.

### **2.1.2 Entrepreneurship Education Concept**

The need for a person anticipating to become an entrepreneur in future as a result of skills acquisition cannot be over emphasized (Ibrahim & Lucky, 2014). In general, entrepreneurship has become a major concern to both scholars and policy makers. This is due to the understanding of the significant role it plays in economic and social growth (Brsneu, 2015).

Entrepreneurship education has been considered as the avenue responsible in driving innovation, creates employment and is also essential for economic transformation and advancement (Hathaway & Litan, 2014). Many governments have considered entrepreneurship as a panacea that facilitates economic growth and especially in Counties that are still developing (Thornton, 2011).

Kenya being a developing Country has developed policies that encourage self-reliance after students graduate from the universities; consequently, it has made entrepreneurship studies compulsory to students, even those not taking business courses (Akambi, 2013). The possibility of entrepreneurially trained students to become entrepreneurs in future has continuously been a challenge to the government and to the scholars as well (Abidin & Bakar, 2005; Lucky & Maina, 2011).

Many students still have their eyes on white collar jobs and are still adamant on taking entrepreneurship as a career option despite its numerous advantages (Akambi, 2013). This situation has lead to increased rate of unemployment and an increase in poverty rate (Olotu, 2015). It has become evident that entrepreneurship education does not only transform students to become venture creators but it has the ability to transform their propensity towards entrepreneurship (Taasila & Down, 2012).

Entrepreneurship awareness has in the recent past touched almost every country in the world. This has been as a result of the increasing global competition that is based on creativity and innovation (Kelly, 2012). Past studies reveal the important role of entrepreneurship education with regard to creation of successful entrepreneurs particularly in Africa (Izedomni & okafor, 2010, Njoroge & Gatungu, 2013).

Increased interest in entrepreneurship can as well be attributed to the changing structure of the western economy, the trend to downsize large companies, changing business patterns and the developing market economies such as China, India as well as Eastern Europe (Kelley, 2012). Ability to predict entrepreneurial characteristics draws attention to the significant role that entrepreneurship training and development plays including the mentorship and the grooming process in the early adulthood (Ibrahim & Ellis, 2002). It can therefore be concluded that the relative importance of education in enhancing entrepreneurial traits is very high. This can be supported by the fact that many associations allocate a great deal of resources to educate their members through external and internal education opportunities (Chell, 2014).

Entrepreneurship has been considered as important force that boosts economic growth and creating Jobs (Haislip, 2011). There are a number of events which focus on entrepreneurship, for instance, the global entrepreneurship week which is celebrated around the world. The aim being to expose the benefits of entrepreneurship to people and encourages people to explore their business ideas and new ventures. Start up weekend is a non-profit organization with a global presence in over 100 countries which aims at promoting entrepreneurship networking in different parts of the world. During that time, a 54 hour weekend is organized whereby people with different backgrounds come together as teams and work throughout the weekend on developing and exchanging business idea (Schramm, 2012).

Many awards are frequently given to successful entrepreneurs, for instance the earnest and young entrepreneurs of the year awards which reach 50 countries worldwide. The global award for entrepreneurship research which was established in 1996 is also another very important event (Henrekson & Lundstrom, 2010).

Since entrepreneurship is relevance to economic growth, social value as well as job creation it means more knowledge about entrepreneurship can therefore speed up the development of entrepreneurial activity for individual firms as well as the societies as a whole (Lohreke, 2010). Entrepreneurship concept is not limited to creating personal or shareholders value with private business; it can also be about creating value for customers' wealth, shareholders wealth as well as creating benefits for other stakeholders and the society at large (Hitt, 2011). On the other hand, social entrepreneurship which is a type of entrepreneurship aims at solving societal and consequently creating social value (Austin, 2006). It is due to the realization of the importance in contributing to economic growth that entrepreneurship education has become a popular topic in various Universities and consequently a substantial increase in the number of courses offered.

## **2.2 Theoretical Literature**

Theoretical literature covers theories that are relevant in entrepreneurship education as well as explaining the moderating role of entrepreneurial propensity on the relationship between environmental dynamisms on entrepreneurial propensity.

### **2.2.1 Experiential Learning Theory**

Learning is an integral part of entrepreneurial process. It is the process though which human and social aspects holds much importance in economic factors Roe, (2006). Shane (2001), states that entrepreneurial activities change from time to time. The reason behind these changes is to respond to the venture requirement. The process is regarded as dynamic and complex and as a result, it becomes difficult to predict the behaviour that an entrepreneur may adapt in order to deal with the changes that are prevailing. Nevertheless, it's possible to estimate the course of the entrepreneurial activities basing it on their behaviour in regard to their past experiences.

An entrepreneur assumes different roles during the business process Gartners, (1988). Each role requires a unique set of skills whose possession would translate to a unique learning exercise Gartners, (1988). This theory stipulates that from the time a business opportunity is recognized by an entrepreneur, to the time he/she is involved in the actual creation of an enterprise, the He/She is involved in many learning cycles which in the process adds to his/her experience. The experiential learning theory widely explain how people acquire knowledge which is translated into a behaviour which is later applied in the process of recognizing and acting on opportunities that come along their way as they organize, start and manage new ventures (Carswell, 2000).

Much of the learning that takes place within an entrepreneurial context is experiential in nature Sullivan, (2000). The cognitive aspect has largely dominated the study of experiential entrepreneurial theory (Minti & Bygrave, 2001). The cognitive theorists consider learning as taking place in a vacuum. It is considered as in isolation from external factors and overlooks the role played by personal experiences. This study however considered beyond the cognitive aspect. Personal experience is believed to influence an individual learning giving rise to a stream of experiences eventually contributing to the individuals' career choice (Cope, 2005).

Past studies reveal three major sources of learning (Azoulay, 2001). They include learning by repetition of efficient practices as well as learning by doing (Bazerman, 2001). It also includes memorizing new information which is as a result of incorrect knowledge and practices based on negative feedback Bazerman,( 2001).

This study investigated how the past experiences that the students have acquired, either from their family background or from the four years of learning in the Universities and how such experience has enabled inculcating a propensity towards entrepreneurship towards entrepreneurship as a career option. It's because of the relationship between experiential learning and how it contributes in starting a venture that renders this theory relevant to the study.

### **2.2.2 Human Capital Theory**

A Nobel economist Gary Becker (1975) was the first person to use the human capital theory. When it was first used, it referred to the acquired knowledge or skills by individuals. The argument in this theory is derived on education and experience. It argues that knowledge acquired from education and experience are considered an important resource diversely dispensed across individuals which informs the basis for understanding disparities when it comes to recognition and exploitation of opportunities ( Chandler and Hanks,1998; Shane and Venkataraman, 2000).

This theory is therefore relevant in this study in that it endeavoured to investigate the triggers that propel entrepreneurship students to engage in entrepreneurship activities after graduation. Human capital theory of entrepreneurship forms the foundation of education in regard to entrepreneurship development and increase in entrepreneurial activities. A person's earning changes in the labour market are influenced by the level of human capital they possess Kyalo, Gichira, Waititu & Kagui (2013). Education and training plays an important role in attaining the level of human capital, referred to as the microeconomic effect of human capital (Karanagh & Doyle, 2006).

Human capital may play an even larger role in the future because of the constant increase of knowledge intensive and activities (Bosma, Van Praag, Thurikk & De wet 2004). The theory argues that there is a relationship between human capital and success (Cassar, 2006), yet there are those who argue that the relationship between human capital and entrepreneurial success has been overrated (Baum & Siverman, 2004), while on the other hand, there are those who feel that human capital constitutes one of the core factors in entrepreneurial process (Haber & Reichel, 2007).

Kenyan Universities produce over 50,000 graduates every year. This is a lot of human capital that if well channelled and empowered with entrepreneurial skills, can turn around the economy of Kenya through job creation.

### **2.2.3 The theory of Entrepreneurial Passion**

The theory of entrepreneurial passion was advocated by Cardon (2009). The theory argues that once an entrepreneurial passion has been stimulated as a result an engagement in entrepreneurial activities, it results in an elaborate definite experience which involves an engagement of brain and body which can be expressed in appraisals and cognitions and also physiological and behavioural responses (Russell, 2003).

The theory advocates that the perception of the emotional experience recognizes that the brain and the body responses has been stimulated by passion does not act independently , but on the contrary it is articulated and is synchronized and sustained overtime (Damasio, 2001). It can therefore be argued that the experience of passion aids an entrepreneur's effort in adapting environmental challenges. This theory is relevant in the study because it endcavoured to investigate the students' ability to cope with environmental dynamism as they create new ventures when they graduate.

#### **2.2.4 Risk Bearing Theory**

Frank Knight (1972) developed the risk bearing theory. It introduced the dimension of taking risk as a central attribute of entrepreneurship. It was adopted from early economics such as Richard Catillon and J B Say. In this theory, uncertainty is considered as one of the factors of production. It holds on the function of entrepreneur as acting in anticipation of the future events. The theory explains that an entrepreneur do earn profit as a reward for risk taking. Entrepreneurs are specialized in responsible direction and control while dealing with uncertainty as others furnish them with productive services for which the entrepreneur guarantees a fixed remuneration is the argument behind the risk taking theory (Praag, 1999).

Upon graduation, grandaunts are faced with a lot of uncertainty and serious decisions about their career have to be made. This theory is hence relevant to this study as it sought to investigate the rate of preparedness of students once they leave the institution and how they ought to overcome the dynamic changes in life as they engage in entrepreneurial activities.

#### **2.2.5 The Theory of Planned Behaviour**

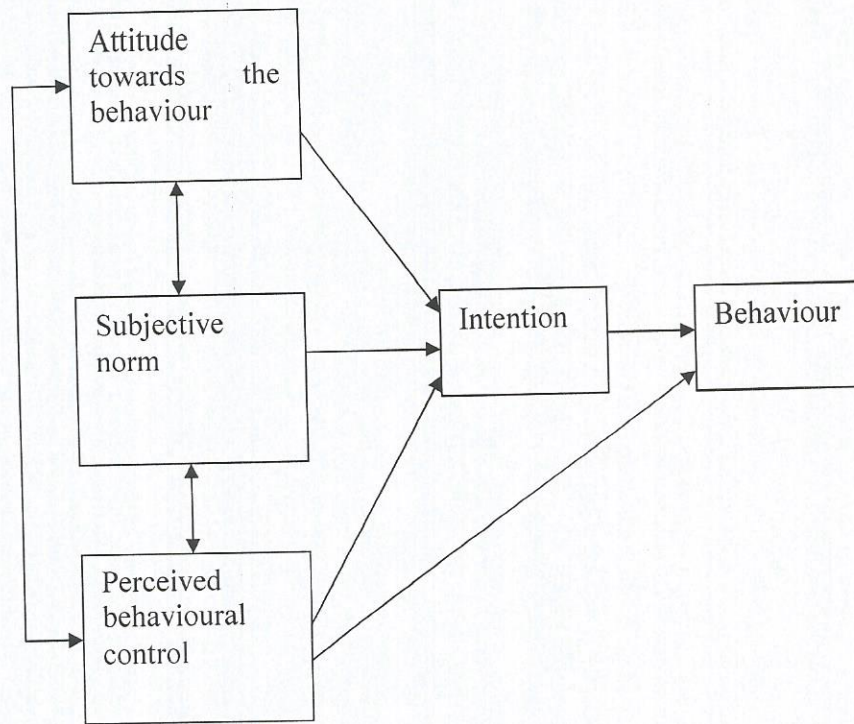
The planned behaviour theory is designed to predict and explain human behaviour in some specified ways (Ajzen, 1988). When an individual anticipates behaving in a certain way, different kinds of behaviour can be predicted with high accuracy from attitudes towards the behaviour, subjective norms as well as perceived behavioural control. Their intention as well as their perception of behavioural control may account for a considerable variance when it comes to actual behaviour. Behavioural dispositions such as social attitude and personality trait may have played an important role when it comes to predict and explain human behaviour of an individual (Ajzen, 1988).



Planned behaviour theory explains that the performance of a behaviour is a joint function of the propensity and perceived behavioural control for accurate prediction to take place (Ajzen, 1988). For that to take place, various conditions must be met. The measures of propensity of perceived behavioural control should be compatible with the behaviour that is being predicted (Ajzen, 1977).

General attitude have to be explored in respect to organizations and institutions such as, the public, church, government, student, housing, ones job or employer or even a group which an individual interacts with (Ajzen & Fishbein, 1977). Propensity is assumed to capture the factors that motivates and that influences a behaviour, they are an indication of how hard people are willing to try and how much effort they are willing to exert in order to engage in certain behaviour. Although some behaviour may meet its requirements quite well, the performance of most of it highly depends on the degree of motivational factors such as availability of requisite opportunities and the availability of resources such as money, Skills Corporation of others among others (Ajzen, 1985).

This theory is relevant to the study in that the researcher investigated the contribution of planned behaviour on the venture creation. Propensity and the perceived behavioural control ought to remain stable in the interval between assessment and the observation of that particular behaviour (Ajzen, 1985). The planned behaviour theory is relevant to this study as it sought to predict the outcome of entrepreneurship education in influencing the behaviour of students becoming enterprising.



**Figure 2.1: Theory of Planned Behaviour Model (Ajzen, 1985)**

### 2.2.6 Shapero and Sokol's Entrepreneurial Event Model

Sokol's and Shapero is a model that is used to provide an explanation for which is the process that leads an entrepreneurial event (Kollmann & Kuckertz, 2006). Shapero and Sokol model explains that inertia guides human behaviour until some events takes place and displaces the inertia that unlocks what was initially undesirable behaviour. For instance, a loss of job can alter one's desire to become self-employed.

The changes of people in their life path have been grouped by Shapero and Sokol into three groups. The first category has a negative connotation as it considers factors such as being fired, being insulted, angered, bored, reaching middle life, being divorced or even being widowed.

The second group is when an individual is found in between things for instance a transition from high school, a period just after graduation, completing a military duty or even when an individual has been released from jail. The second category has been seen to be more effective especially because students usually have no specific idea of what they want to be after school. The third grouping has more positive implication.

Factors under this category are referred to as the Pull factors and have a positive inclination (Shapiro & Sokol, 1983). This may result from an influence from a partner, an investor who is successful, a customer or even a mentor. Behaviour eventually translates highly on the credibility of alternative and the propensity to act. In this context credibility is given when there is perceived desirability behaviour. On the other hand, that alone would not suffice to execute behaviour. There is need for a displacement event that would change the perception and the propensity so as to eventually act or perform certain behaviour.

Whenever there is a displacement event that may triggers cognitive processes, the individual may act in a specified behaviour which is higher than that of the alternatives and also if that individual has a general propensity to act in a specified action (Shapiro & Sokol, 1983). Perceived desirability refers to values and how those values may affect the individual's perception of what is either attractive, desirable and which one is not. Culture, peers, colleagues, mentors as well as previous work experience can strongly affect a person's value and perception of desirability Shapiro & Sokol (1983). Perceived desirability can be equated to subjective norms as stipulated in the planned behaviour theory (Krueger, 2000).

Perceived feasibility reveals the extent to which a person feels capable starting a business, while on the other hand propensity to act is the individuals' disposition to act upon a certain decision (Krueger, 1993). It can be conceptualized, according to Shapero and Sokol, (1983). An internal locus of control is a measure of propensity to act. Some scholars have equated propensity to act with "Learned optimism" (Krueger, 2000) risk taking propensity as well as tolerance of ambiguity (Kermit, 2008). The diagram below illustrates categories of a life path as demonstrated by Shapero and Sokol (1983)

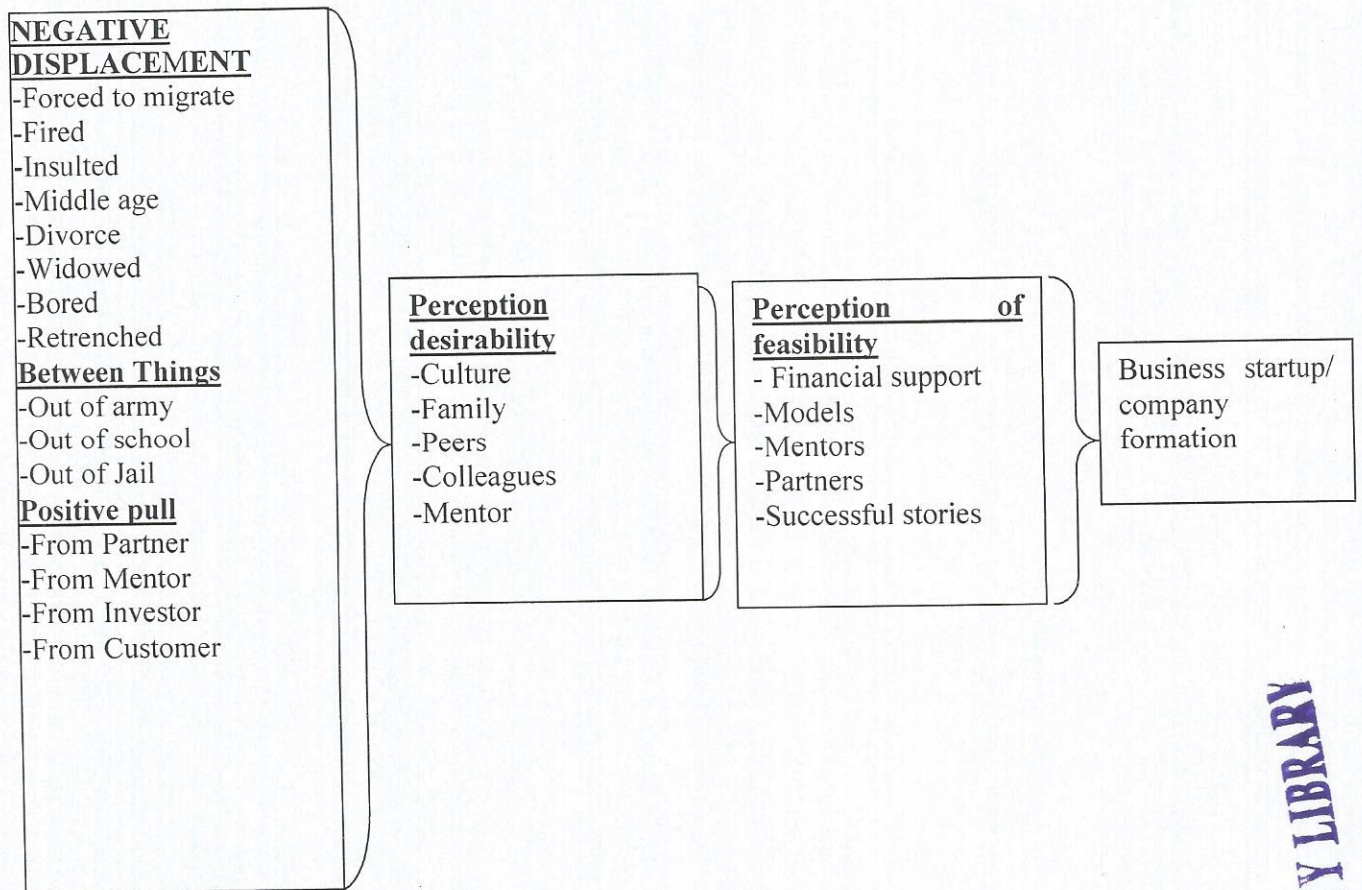


Figure 2.2: Shapero & Sokols Entrepreneurial Event Model (Shapero & Sokol,1983).

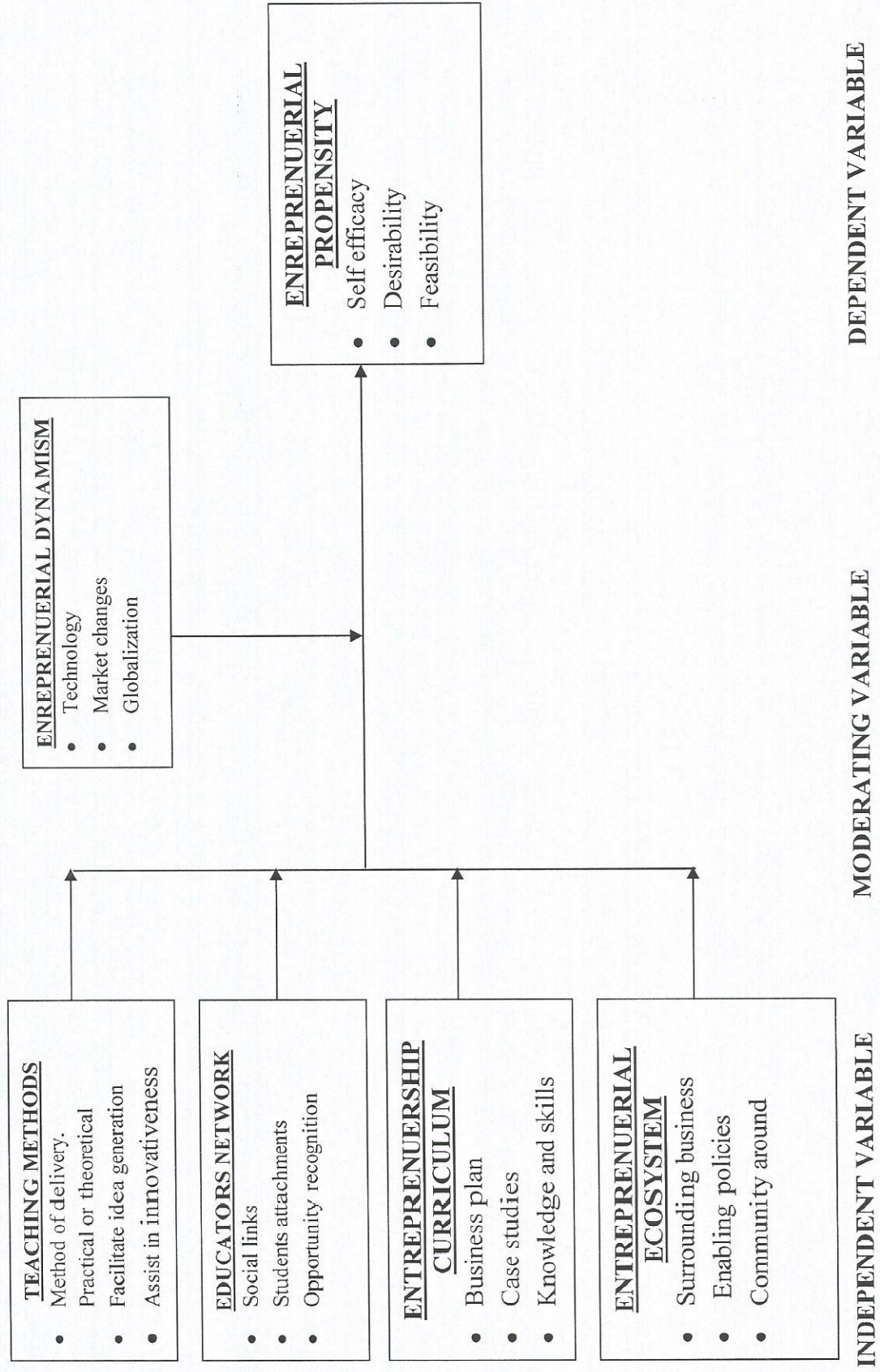
### **2.3 Conceptual Framework**

A conceptual framework is a model of presentation. The researcher conceptualizes the existing relationships between variables under study, then shows the relationship either diagrammatically or graphically (Orotho, 2008). A conceptual framework is a hypothesized model identifying variables under study and showing their relationship Orotho (2008).

The variables in this study were categorized as dependent variable, independent variable as well as the moderating variable. Mugenda (2008), States that the independent variable can also be referred to as predictor variables. This is because they are used in predicting the variation that occurs in relation to a different variable. Mugenda (2008) explains further that that the dependent variable can also be referred to as criterion variable. This is mainly because this variable is influenced to change by another variable. It is the dependent variable that the research study wishes to explain. On the other hand, the moderating variable is one that stipulates the strength and the causal relationship among variables (Frazier, Tix, & Barron, 2004)

The variables under study analyzed how teaching methods, educators' network, entrepreneurship curriculum and entrepreneurial ecosystems influenced entrepreneurial propensity among entrepreneurship students in Kenyan Universities. Environmental dynamism has been adopted as the moderating variable in this study. The variables used have been derived from past studies.

**Conceptual Framework (E.E)**



**Figure 2.3: Conceptual Framework**

### 2.3.1 Teaching Methods

Popular teaching methods in entrepreneurship education are creation of business plan, case studies and lectures Solomon (2002). Many ways of delivering entrepreneurship education depends on the main objectives of the education ( Hytti & O' Gorman, 2004). If the objective of education is to increase the understanding of what entrepreneurship is all about, the effective way to accomplish that objective is the provision of information through public channels for example media, seminars as well as lectures sessions. The methods are effective since they will deliver message to a group of people within a short time period. If the objective on the other hand would be to equip individuals with entrepreneurial abilities, the preferred way would be to provide education in a form of training whereby the individuals are directly involved in the entrepreneurial process as it happens in an industrial training (Hytti& O' Gorman, 2004). On the other hand, if the objective of the study was preparing students to act as entrepreneurs, the appropriate technique would be carrying out of experiments in a controlled area (Ahamed ., 2004).

Entrepreneurship teaching has been categorized into two “traditional methods” which is also referred to as normal methods and the “innovative methods’ also called the action based method. The two methods have as well been referred to as either passive or active methods of teaching (Mwaslwiba, 2010). The active method requires that the instructor facilitates learning and not to control and apply methods that would otherwise enable the students to have a self discovery during the learning session. In teaching entrepreneurship, the most commonly used methods are lecture methods, case study and group discussion method. The same methods are also applied in teaching other business courses. They are passive and less effective in helping rifer an entrepreneurial intention among the learners (Bennett, 2006). Fiet (2000), states that some instructors who rely on these methods do so because they are easier to accomplish and require less investment.

Other methods applicable in teaching entrepreneurship include films and video, guest speakers, role model, preparation of a business plan, project works, games as well as competition, setting small ventures, workshops, presentations as well as study visits. These methods are active and more appropriate in inculcating an entrepreneurial propensity among students (Mwasalwiba, 2010). This study hypothesized that:

*H<sub>01</sub>: There is no significant relationship between teaching methods and entrepreneurial propensity*

### 2.3.2 Educators Network

The educators networks with the entrepreneurship practitioners and other stakeholder has an important role in delivering entrepreneurship education to students (Gatchalian, 2010). It is through networks that educators accumulate tacit knowledge which facilitates their teaching competence. The network that an educator has positively or negatively affects the personality of the students by either shaping them to become more entrepreneurial or vice versa. The main benefits for network to students include accessing their attachment opportunities in a real enterprise environment, ability to develop a human resource management skills (Thompson, 2009), enabling a relevance entrepreneurship education (Mansor & Othman, 2011); activating social links as well as interactions (Pittawayett., 2004), opportunity recognition, an entrepreneurial orientation, vocational decisions to be an entrepreneur.

Such network can be accessed through foundations, private Companies, successful entrepreneurs, Government agencies, Service parks, business development services (BDS) and other entrepreneurship training centres (Klyver, 2007).



From the educators' network determinant, the study considered the personality trait of the students and how much that personality has been influenced by the educators' network. Have the student accessed role models and has this transformed their personality to enable them embrace entrepreneurship as an appropriate employment option are some of the issues that this study focused on. It is from the above discussion that the following hypothesis was formulated:

*H<sub>02</sub>: There is no relationship between educators' network and inculcating entrepreneurial propensity among entrepreneurship students.*

### **2.3.3 Entrepreneurship Curriculum**

The term 'currere' was first used by Pinar (Pinar, 2011). It is a Latin infinitive word for curriculum. Pinar in his explanation on entrepreneurship concept wanted to highlight the meaning of a lived experience Pinar (2011). The Latin word also means 'Racecourse'. For any school student, any school curriculum is considered as a race to be run, it contains several obstacles or hurdles (Subjects) to be passed. The explanation of the term broadened in the twentieth Century to include subjects other than the classics subjects only. Currently, school documents, news paper articles, committee reports and many academic textbooks have referred to all subjects offered or prescribed by the institution as 'the school curriculum'. There exists common knowledge that a relationship does exist between entrepreneurship education and economic growth (European Commission, 2011).

Literature on entrepreneurship education has continued to question how successful it would be to integrate entrepreneurship in the University curriculum (Gibb, 2002; Hannon, 2005) to such an extent as it benefits student. Entrepreneurship education varies widely across Countries in terms of objectives, audience, format and pedagogy Fayolle, (2008).

Past studies have revealed that entrepreneurship skills and knowledge can be taught and also developed provided appropriate environment is made available (Gibb, 2005). It can be argued that education plays an important role in the process of building entrepreneurial capacity just as it does in other disciplines' (Hannon, 2006). Hence this study hypothesized that:

*H<sub>03</sub>: There is no relationship between entrepreneurship curriculum and inculcating entrepreneurial propensity among entrepreneurship University students in Kenya.*

#### **2.3.4 Entrepreneurial Ecosystem**

The term ecosystem was first coined by James Moore in an influential article from Harvard Business Review that was published during the 1990s. James Moore argued that businesses do not exist in a vacuum. This is because the embedded nature firms interact with the customers, suppliers and even the financiers (Moore, 1993). Past studies have revealed that in a dynamic ecosystem, new firms have a better opportunity to grow and even create employment as opposed to firms created in other locations (Rosted, 2012). Entrepreneurial ecosystem can be viewed as a set of interconnected entrepreneurial actors, either existing or has the potential to exist. Entrepreneurial organizations such as firms, financing institutions, Universities as well as public sector agencies and entrepreneurial process such as start up enterprises and firms that are highly formal or informal connect, mediate and govern the performance within the local entrepreneurial environment Rosted,(2012).

Several models of entrepreneurial ecosystem have been developed by different scholars. Daniel Isenberg of Babson College developed an ecosystem model. He articulated it with what he referred to as an 'entrepreneurship ecosystem strategy for economic development (Isenberg, 2011).

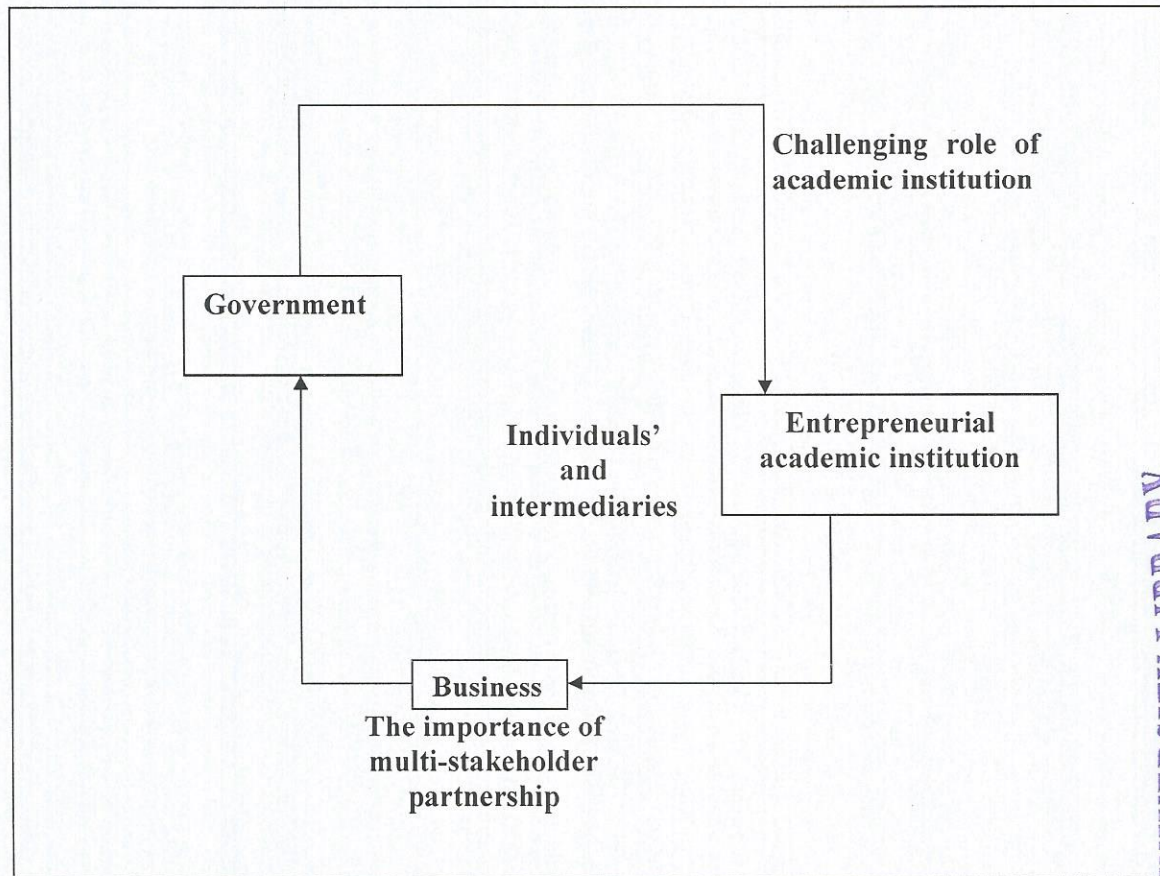
Daniel Isenberg argued that an approach like that claimed that such formed a novel, cost effective strategy for stipulating economic growth of any Nation. Such an approach becomes a pre-condition for successful entrepreneurial activities such as knowledge economy, innovation systems, as well as national competitiveness policies (Isenberg, 2013).

An entrepreneurial ecosystem basically comprises of six domains. The domains of an entrepreneurial ecosystem includes a conducive culture, enabling policies and leadership, availability of finance , quality human capital, venture markets that are and friendly and a range of institutional support ( Isenberg, 2011). The above domains have elements which interact in a highly complicated and idiosyncratic ways (Isenberg, 2011). Each ecosystem emerges under a unique set of conditions and circumstances within which the ecosystems operates (Isenberg, 2011).

An entrepreneurial ecosystem can be industry specific. It may evolve from a single industry to include other industries (Isenberg, 2013). They are also graphically bounded, yet again cannot be confined to one specific geographical location. Entrepreneurial ecosystems are also not related to one particular city (Isenberg, 2013).

Entrepreneurial ecosystem is a relevant variable in this study. The study sought to investigate the influence of the ecosystems in determining entrepreneurial propensity among students. Students come from diverse parts of the Country and merge in an institution. The ecosystems of where they come from are different and operate differently and can positively or negatively influence their rate of preparedness to become entrepreneurs upon graduation.

Since man is part of the system, their actions and behaviour would be highly influenced by environmental interactions within which they reside and this is what this study sought to investigate.



**Figure 2.4: Entrepreneurial Ecosystems**  
(Word Economic Forum, 2009)

### 2.3.5 Environmental Dynamisms and Entrepreneurship Education

Entrepreneurship education has a great influence in inculcating an entrepreneurial propensity. A few studies have been carried out on the relationship between entrepreneurship education and environmental dynamism.

Several factors have been identified as determinant of entrepreneurial propensity such as, self-efficacy, (Boyd & Vozikis, 1994; Mobaraki & Zane, 2012) Entrepreneurship education (Jorge & Merono et al., 2012; Solesvik, 2013).

Personality (Nga & Shamu Ganathan, 2010; Zarafshani, 2011) and gender (Gupta & Turban, 2009; Wilson et al., 2007). Schwarz *et al.*, (2009) have called for studies on personal and environmental factors in determining entrepreneurial propensity. Paucity in entrepreneurial and especially at individual level is perturbing (Gupta, 2015). Suresh and Ramray (2012) suggest that an individual characteristic isn't enough to determine entrepreneurship propensity in an individual. Results in past studies have remained contradictory (Ahl, 2006; Hmielski & Corbett 2006) therefore the need for a moderating variable (Baron & Kenny, 1986). This study proposed environmental dynamisms as a possible moderator, moderating the relationship between entrepreneurship education and entrepreneurial propensity.

### **2.3.6 Entrepreneurial Propensity**

The term propensity refers to a personal disposition to act on one's decision. It is that inner push that propels an individual to act entrepreneurially. (Bateman & Crant, 1993; Krueger, 1993). Krueger (2000) argued that entrepreneurial propensity can be as a result of certain cultural values within a given environment such as availability of business opportunities.

That the trigger can also be as a result of an individual possessing entrepreneurial traits, their ability to take responsibility as well as being personally motivated to act. Burns (2001) on the other hand proposes that for an individual to become an entrepreneur, probably it was in their characteristic traits, or the situation favourable presented itself or it could be as a result of the culture of the society within which an individual lives can also trigger the propensity to become an entrepreneur.

Scholars and government officials have in the recent past shown a growing interest in business start up and especially those started by well educated individuals (European Commission, 2008). Such initiatives are viewed as paramount because past studies have shown that basic literacy in entrepreneurial concepts is bound to increase awareness on entrepreneurial career which students can choose to engage in upon graduation (Greene, 2010). Past studies have revealed that entrepreneurship can be learnt. It can therefore be argued that a well designed University programme can promote components that are necessary for entrepreneurship such as taking risk, independency and creativity among other elements (Gibb, 2002).

Despite the efforts put in place, it has remained quiet unclear which factors actually influence an entrepreneurial propensity especially among students (Gartner, 2004). The cause for such uncertainty can be attributed to the differences in entrepreneurship education between countries or even across the same Country and one institution from another (Kuratko, 2005; Pittway and Cope, 2007).

Since there isn't one fact concluded on what propels students toward entrepreneurship as a career option, it would be vital to combine both perspectives, focus on the individual analysis level and also explore the factors that students consider as leading him or her towards entrepreneurship within a University environment (Krueger and Brazeal, 1994).

Entrepreneurial propensity is the dependent variable that this study endeavoured to investigate. The main question that this study endeavoured to answer was what are the extrinsic and intrinsic factors that exert greater influence on the surveyed students towards entrepreneurship?

Which are the factors that favour or prevent students from the sample taken considering entrepreneurship as a career option of choice? There exists a variety of 'pull' and 'push' factors that give an insight on students' propensity towards entrepreneurship (Boissin, 2009).

#### **2.4 Empirical Literature**

Empirical studies on the extent to which entrepreneurship education influences the decision of students' to become entrepreneurs is steadily increasing (Byabashaija, Katono and Isabalija, 2010, Muofha and Du Toi, 2011). In their study, they found there is a positive impact of entrepreneurship education at University level as an attractive feasibility for starting new ventures. Some of the studies have shown that alumni people who have participated in entrepreneurship education at University level usually start businesses and have normally higher earnings (Vestergaard, Moberg and Jorgensen, 2012). Past studies have shown that the choice to become an entrepreneur and subsequently pursue an entrepreneurial career has a positive correlation to entrepreneurial education (Fayolle, Gailley and Lassas-Clerc; 2006).

Namsonge (2006) and Oyugi, (2014) have argued that the Kenyan education is not producing students who are inclined toward becoming entrepreneurs in future. It has been noted that those self-employed usually are school drop outs with no other employment option (Oyugi, 2014). Entrepreneurship education should aim at helping the students to learn to understand entrepreneurship, learn how to become entrepreneurial and also how to become an entrepreneur Hytti (2004). Where entrepreneurship is taught, it does encourage entrepreneurial action and inculcates an entrepreneurial intention and such students are likely to pursue an entrepreneurial career in future (Kaijage & Wheeler, 2013).

Most institutions that provide entrepreneurship training suffers from adequate capacity hence incapable of offering training in a wider range of traders within its environs (Nteere,2012; Gibb, 1988; Murithii, 2013).

Gerba (2012) issued an entrepreneurship questionnaire to 156 business and engineering undergraduates' students in Ethiopia. In his study, Gerba (2012) in his study found that business students who had undergone entrepreneurship education had a positive tendency towards entrepreneurial propensity than those engineering students who had not taken the entrepreneurship course. Entrepreneurial propensity is fostered by a unique blend of factors such as culture, family, role models, education, work experience as well as personal behaviour among attributes. Various studies have focused on a wide range of drivers, motivations, antecedents and entrepreneurial activity (Ahmed 2010). Individuals who chose entrepreneurship as an alternative career are subjected to various push and pull. Such factors ultimately determine and shape their entrepreneurial career path (Matlay and Storey, 2003).

A study by Byabashaija, Katon & Isabahje (2010) singled out entrepreneurial education personality factors, subjective, societal norms, and situational factors from the wider spectrum of environmental factors. It explores their influence as contributing factors from the wider spectrum of environmental factors and explores their influence as contributing factors in shaping students attitudes towards entrepreneurship careers.

Peterman and Kennedy (2003) carried out a study that examined the influence of enterprise education programme on perceptions of desirability and feasibility of business creation and found a positive effect. The result in their study indicated that self efficacy theory is a useful tool used to explain the contribution of entrepreneurial education programme.



Past studies have revealed that personality traits have a strong influence on an individual's propensity towards entrepreneurship and consequently toward starting their own ventures (Koh, 1996; Mueller & Thomas, 2001; Robinson et al., 1991). A study by Mauchi *et al.*, (2011) revealed that most institutions in Zimbabwe offer entrepreneurship course and it is restricted mainly to business students and mainly covered on the last semester of their four year training period and for some, the course is optional for graduates students. The study by Mauchi et al., (2011) further revealed that lectures teaching entrepreneurship had little or no practical experience in running their own businesses and many lacked formal training in teaching entrepreneurship.

Besides the skills that a student acquires such as starting, operating and managing a business, entrepreneurship education is expected to create a capacity for imagination, flexibility, creativity, willingness to think conceptually as well as the art to identify an opportunity (Drucker, 1994; Bygrave and Zacharakis, 2000; Timmons and Spineli, 2004).

Successful entrepreneurship is strongly related to the previous entrepreneurial experience as opposed to the formal education (Denker et al., 2009; Folta et al., 2006; Martin *et al.*, 2013; Toft-Kehler *et al.*, 2014). Broad mixture of skills is important for entrepreneurial success as opposed to a specific education (Lazear, 2004; Leibenstein, 1987, Wagner; 2003). Stimulating entrepreneurship interest among University students is one way of addressing the youth unemployment in Kenya (Maina, 2006).

## **2.5 Critique of the Existing Literature**

A study by Maina & Kyalo (2017) examined the pedagogy of entrepreneurship education and its contribution in creating entrepreneurship in Kenya revealed that there is a significant influence of mass instruction technique, doing experiment method and active experimentation method entrepreneurship pedagogy on entrepreneurial propensity.

The study ought to have on methodology applied to deliver entrepreneurship to facilitate inculcating entrepreneurial propensity towards entrepreneurship as a career option. Extra effort should have been put to ascertain the rate of preparedness once they leave their specific institutions of higher learning.

From their study, it was not possible to ascertain if the students acquired the practical skills and whether there is an industry relevant in entrepreneurship education where the students can apply and experiment on their already acquired skills. Extra effort should have been put to consider the place of environmental factors that are important in contributing factor towards entrepreneurial propensity.

A study by Afriyie & Boohene (2014) on entrepreneurial education and culture among universities of Cape Coast students in Ghana indicated that entrepreneurship education has been made a core course, studied by all students regardless of their areas of specialization. The study focused on inculcating an entrepreneurial culture among Cape Coast as a strategy to address unemployment. That if such a culture is adopted, students would become job creators as opposed to job seekers, consequently creating employment for themselves and others. While these findings are relevant, the study seemed to ignore the importance of specialization in a given area of study.

The study population for the study was 547 out of which 203 were statistically obtained. This is a small sample to use for generalization. The study focused on culture. Culture refers to beliefs, attitudes and norms of a given community. The study revealed that there is no significant relationship between modes of teaching entrepreneurship and entrepreneurial culture. The study did not however stipulate how culture was shared considering it is a challenge to measure beliefs.

Past studies have revealed the important role that environmental dynamics plays in shaping an individual career. If this moderating variable had been captured, the study would have catered for the outlying factors that shape the career of students after they graduate from the universities.

Ngoze M (2015) carried out a study on fostering entrepreneurship in Kenya and the role of associations. The population for the study were Sambut Self Help Group (SSHG) from Uasin Gishu in Kenya. Out of the population, a sample of fifty (50) was used. The study omitted the concept of previous education of its member considering that education plays a role in as far as understanding of various concepts about entrepreneurship is concerned. According to Rae (2006), entrepreneurship education is important in determining whether a person becomes an entrepreneur or not.

On the other hand, a sample of fifty was a small sample to generalize a population of an entire county. The sample used was people from the same region which made it difficult to get the opinion of individuals from a different geographical region hence lacking diversity of opinion.

In most cases, self help groups are made up of people from the same gender. The study omitted the gender issues and therefore making it hard to understand the opinion of the unrepresented gender cohort. On the other hand, self –help groups (SHG) are more social oriented and lack an economical orientation. Such a study would have gone deeper in order to address the economic issues and much more employability through entrepreneurship as a result of job creation. The concept of human capital as a tool for economic growth was also not addressed.

Ngugi, Gakure, Waithaka & Kiwara ( 2012) did a study on the application of Shapiro's model in explaining how entrepreneurial intention is created among University students in Kenya. Their study revealed that it is possible to offer entrepreneurship courses and that entrepreneurship education is necessary in enabling entrepreneurial abilities. The study showed that the respondent had knowledge on the ready available business opportunities. Whereas the study considered the perceived desirability, perceived propensity and perceived feasibility on entrepreneurial intentions, it did not focus on a moderating variable hence assumed a simple conceptual model which couldn't capture the outliers which are equally important in propelling an entrepreneurial propensity among students. The study focused one model and left out the model of planned behaviour for comparison purposes. Making a general conclusion from a single model leaves the study open for any form of biasness.

Elert & Anderson (2014) studied on the impact of entrepreneurship education in high school on long term entrepreneurial performance. The study used a propensity score which matched and compared three Swedish cohorts from Junior achievement Company program (JACP) as well as a match sample of similar individual and followed them up to 16 (sixteen) years after they had graduated.

The results in their study indicated that JACP participation increased long term ability of starting a business as well as entrepreneurial incomes. However, the study revealed that their entrepreneurial background had no effect on the firm performance. Trying to get students once they have left University especially sixteen years down can be an uphill task and opens the study for incorrect findings.

A lot is bound to happen within such a long period of time and with environmental dynamics which changes over time, their decision of becoming entrepreneurs would have been tampered with. In their study, the cohort of study included a total of 211,754 individuals which could be difficult to trace after such a period and hence opening the study out for biasness.

Muiru & Njoroge (2013) carried out a study on the contribution of development partners initiated programs on the growth of entrepreneurship in Kenya. In their study, they recognized that Kenyan programs have been launched to support SMEs (Small medium enterprises) and entrepreneurship. The study used the meaning of SMEs and entrepreneurship to refer to the same thing. The study targeted the beneficiaries of the District Business Solution Centre (DBSC) in Muranga County. The DBSC programs were initiated by UNDP, ILO and UNIDO under the ministry of trade. The study ought to have gone deeper to capture the level of education and training that these people were exposed to prior the program. The study operated within the assumption that launching of the program was sufficient to inculcate an entrepreneurial propensity among the beneficiaries.

The Government and donor support program are important but may not be sufficient to starting and operating a venture. Other factors such as education, the environment, and individual characteristics all come in to play to ensure its success and sustainability of such programs.

Fafaliu (2012) conducted a study on student's propensity to entrepreneurship which was an exploratory study from Greece. In the study, one third of the respondent (34.7%) reported to having an idea of the type of business that they desired to establish. However, the study revealed that a majority of the studied group were insufficiently prepared to become self-employed.

The questionnaire was the tool used for data collection. It was in German language, translated to English and finally to Greek. Since language is dynamic and one thing may mean a different thing in another language, there was a possibility of the study giving incorrect information. Effort should have been made to harmonize the language as much as possible to avoid biasness.

A study by Poh-Kam Wong (2005) on antecedents for entrepreneurial propensity in Singapore attempted to highlight the influence of perpetual variables on entrepreneurial variables such as self efficacy, alertness to opportunities, knowing other entrepreneurs and also fear of failure. While these variables are relevant, the study left out the external factors that are equally important antecedent to entrepreneurial propensity. Understanding the individual is important and so understands their environment and their background. The study ought to have considered the instructors network, government policies among others to give the study more weight in understanding entrepreneurial propensity that could be caused by factors outside the individual control. Over 15(Fifteen) Variables were studied. This renders them so many to provide timely, adequate and reliable information.

On the other hand, data was from a multi-Country survey of adult population carried out by the global entrepreneurship Monitor (GEM) 2001-2004 studies. The sample size was of working age adults between age of 18-64 years old. Considering the study was of young adults and elderly people, the results would give a large variance due to their differences in experience, exposure as well as test and preferences. The study should have narrowed the demographic differences as much as possible.

A study by Gerry & Susana on tracking students' entrepreneurial personal characteristics and propensity for business start-ups after graduation in a Portuguese University found that gender, risk factors related to profession/ employment choice and academic training were significantly affected students interest and motivated them to start their own business. The study ought to have considered the method of teaching entrepreneurship to warrant students' inclination towards entrepreneurship as a career option.

## **2.6 Summary of the Literature Review**

This chapter covered the theoretical framework, conceptual framework, empirical review and the literature gaps. Theoretical framework has provided a theoretical understanding of the research by reviewing theories that are related to the study. The literature has affirmed that entrepreneurship education plays a key role in inculcating entrepreneurial propensity among students. It has shown that inculcating an entrepreneurial propensity while students are still in their institution of higher learning is important because they are in the stage of life where decision making about career option has to be made.

For students to develop a positive attitude towards entrepreneurship, factors that are not of their own making have to be considered. Literature has revealed that teachers' network, teaching methods, entrepreneurial ecosystems as well as environmental dynamisms such as markets and technology, resource availability have their place in inculcating an entrepreneurial propensity among the students. This study reviewed those areas in details considering that much has been done in this area.

## 2.7 Research Gap

Environmental dynamism has been tested as a moderator in other studies and especially how it relates to entrepreneurial inclination. A study by Ensley, Pearce & Hmieleski (2006) focused on moderating effect of environmental dynamism on the relationship behaviour and new venture performance. Hao & Jiao (2011) studied on moderating effect of environmental dynamism on relationship between dynamism capabilities. Strategy and new venture performance, Vasylivna (2015) studied on entrepreneurial environmental management model of marketing on a political administration. Among the studies that considered environmental dynamisms none studied it from University entrepreneurship education point of view hence leaving a gap that this study endeavoured to fill.

Studies that have been carried out on entrepreneurship education includes a study by Oyebola, Irefin & Olaposi (2015) on evaluation of entrepreneurship education on selected Nigerian universities influence on entrepreneurship education on culture by Dabale & Masese (2012), Malebana (2014) on entrepreneurial intent of final- year commerce students in rural provinces of South Africa, Ngoze M, (2015) studied on fostering entrepreneurship education in Kenya , a study by Maina & Kyalo, (2017) examined the pedagogy of entrepreneurship education and its contribution in creating entrepreneurship propensity.

In as much as the above studies focused on the importance of entrepreneurship education, they failed to consider the external forces that propel students to considering entrepreneurship as a career option. The studies considered students who had enrolled in business courses.



This study looked at the students who had specialized in entrepreneurship, a gap which past studies had left out. The sample taken for the above studies was from a single University. This would not suffice to give a general understanding on the role that entrepreneurship education in the entire country, a gap that this study tried to fill by giving it a national outlook by considering as many different geographical areas as possible. Not many studies have been done on entrepreneurial propensity and especially in Kenya. A lot has been done on entrepreneurial intention yet entrepreneurial propensity is important in determining a person's career choice.

Some studies on propensity includes a study by Fafaliou (2012) on students propensity to entrepreneurship among University students in Greece, Poh-Kam, Wong (2005) studied on antecedents for entrepreneurial propensity in Singapore. Gerry, Margues & Noguera (2008) studied on tracking students' entrepreneurial potential and looked at the personal attributes and the propensity towards business start-ups after graduation in Portuguese University.

Maina & Kyalo (2017), studied on examining the pedagogy of entrepreneurship education and its contribution in creating entrepreneurial propensity. Studies on entrepreneurial propensity especially about students is scarce, hence a gap that this study endeavoured to fill. The moderating variable was outstandingly missing and this study factored it in.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The chapter has stipulated a description of the research design and the methodology that has been used to fulfil the research aims and objectives. The data was gathered from the survey questionnaires which were randomly distributed to those students pursuing entrepreneurship and were in their fourth year of study in the month of September-December (2016/2017 academic year). The study described the target population, sampling technique, sample size, research instruments, reliability and validity, data collection procedures as well as data analysis techniques applied in the study.

#### 3.2 Research Design

This study used a descriptive research design. Description is the precise measurement and reporting of the attributes of some population or phenomenon that are under study (Rubin & Babbie, 2010). The awareness of the characteristic of a group which allows the ability to gauge the aspects of the situation, to provide information for further studies and assemble data around possible changes becomes its outcome (Cavana, Delahaye & Sekaran, 2001). A descriptive design has been used in this study to elaborate on the perspective of entrepreneurship education in as far as the literature review is concerned. It has also been used to determine the occurrence of the study through a survey method with use of questionnaires (Kinnear, 1993). However, the descriptive design does not establish a direct cause and effect relationship that exists between the variables under study. To address the cause and effect aspect, a causal design has been adopted to fulfil this purpose (Zikmuud, 2003).

### **3.2.1 Causal Research Design**

A causal approach is applicable in explaining a hypothesised relationship that exist between two variable or more than one variables in a given situation (Zikmuud, 2003). This involves constructing as well as testing research hypotheses in order to establish the worth of a theory and how much that theory is able to make predictions about a social phenomenon.

A causal design uses statistical testing in order to explain the relationship that exist between the variables in question (Hoyle, 1995). This approach is appropriate where the research problem has been clearly defined (Zikmuud, 2003). The causal design has been used in this study to exhibit the relationship or the association between the independent variables and the dependent variable and how they are manipulated in order to test the hypotheses about the existing dependent variable under study (Zikmuund, 2003).

### **3.2.2 Qualitative Approach and Quantitative Approach**

Qualitative research approach is in nature inductive. It can be looked at as an in-depth exploration of issues in a less structured format (Ko De Ruyter & Scholl, 1998). It uses different methods to collect information and it is exploratory and open-ended (Perry, Riegie & Brown, 1998; Zikmund 2003, Neumann 2006). A quantitative research on the other hand aims at causal explanations and establishment of general principles and laws that are in nature quantitative. The measurement of quantitative research measurements must be objective and statistically valid (Kumar 2005).

A quantitative approach has been adopted in this study. It is the appropriate one given that the study investigated the influence of the dependent variables (Teaching methods, educators' network, entrepreneurial ecosystems and entrepreneurship curriculum) and the moderating role (Environmental dynamisms) and the dependent variable (entrepreneurial propensity). This study does not aim at developing new theory. On the contrary, the study aimed at testing the application of the existing or even confirming the existing theory (Deshpande, 1983). Quantitative approach is appropriate in this study because the data analysis is through statistical method and use of Tables.

The approach aims at measuring the relationship existing between the variables under this study (Creswell, 2003; Neuman, 2006). The study aimed at predicting the response of the independent variables and the moderating variable and its role on the dependent variable. The hypotheses under study aimed at testing the model through a survey of questionnaires and data gathering from a number of respondents in this case being the fourth year students taking a degree in entrepreneurship (Neuman, 2006). Rengiah (2013) used the above research design and approaches on the study on the effectiveness of entrepreneurship intentions among Malaysian University students and hence justifying similar approach for this study.

### **3.3 Population of the Study**

The population of this study were University students who were in fourth year and pursuing entrepreneurship course at degree level. The selection of the students was advised by their enrolment in Entrepreneurship programme which provide an indication that their career interest is skewed toward business related field (Zainuddin & Ismail, 2011). The assumption is that they were likely to become entrepreneurs in future.

The study population comprised of 607 students undertaking a degree in entrepreneurship in both private and public chartered universities in Kenya who are in the fourth year of study. Ibrahim, Bakar, Aimna & Zakana (2015) used a population of final year students of electrical technology in their study on the impact of entrepreneurship education on entrepreneurial intention in both technical and vocational training institution. Guyo, Golo & Dida (2010) used a population of final year undergraduates' students of business and economics from Addis Ababa University on a study on entrepreneurial intentions and its determinant: Evidence from University of Addis Ababa. Past studies have shown that graduates between the ages of 20 to 25 have a high tendency towards starting their own ventures.

**Table 3.1: Universities Offering Bachelors in Business Entrepreneurship.**

<b>Name of University</b>	<b>Number of Students (N)</b>
Kenya Methodist University	68
Jomo Kenyatta University	55
Kisii University	50
Egerton University	140
Moi University	85
Meru University	55
Karatina University	39
Chuka University	90
Kirinyaga University	25
<b>Total Population</b>	<b>607</b>

### 3.4 Sample Size and Sampling Procedure

A probability sampling was used for the study. Fayolle & Gailly (2008) suggested that such sampling is easy to use and has often been used in entrepreneurship research. Afriyie & Boohene used it to obtain the sample on a study about entrepreneurial education and entrepreneurial culture among University students of cape coast. This study used a simple random sampling method. The sample should be sufficient enough to represent the entire population. Mugenda & Mugenda (2003) has recommended a 20-30% sample of a target population. The following statistical method was used to calculate the sample size for the study Zikmund, (2010).

$$N = \frac{Z_{\alpha/2}^2 \cdot pq}{E/2}$$

**Equation (1)**

Where  $n$  = required sample size

$z$  = Population size

$p$  = population proportions (probability of acquiring an entrepreneurial propensity)

$q$  = (1- $p$ ) probability of not acquiring an entrepreneurial propensity

$E / 2$  = is the allowable error or margin of error.

$$Z_{\alpha/2} = 0.95/2$$

0.475 Therefore Z-Score is 1.96

$$E = 1.5\% / 2 = 0.075$$

$$P = 50\%$$

$$q = 1 - 0.5$$

$$= 0.5$$

Therefore:  $p \times q$

$$0.5 \times 0.5 = 0.25$$

$$Z/E = 1.96/0.075 = 26.13$$

$$26.13 \times 26.13 = 682.95$$

$$0.25 \times 682.95 = 180$$

Maina & Kyalo (2017) used the same formula to get a sample for their study on examining the pedagogy of entrepreneurship education and its contribution in creating entrepreneurship in Kenya.

**Table 3.2: Sampling Procedure for the Population**

<b>Universities</b>	<b>No. students (n)</b>	<b>Percentages %</b>	<b>Sample Size (n)</b>
<b>Kenya Methodist University</b>	68	37	25
<b>Jomo Kenyatta University</b>	55	27	15
<b>Kisii University</b>	50	34	17
<b>Egerton University</b>	140	21	30
<b>Moi University</b>	85	29	25
<b>Meru University</b>	55	36	20
<b>Karatina University</b>	39	26	10
<b>Chuka University</b>	90	33	30
<b>Kirinyaga University</b>	25	32	8
<b>Target population</b>	<b>607</b>		<b>180</b>

### **3.5 Data Collection Instruments**

A research instrument is used to measure the variables of the study (Mugenda & Mugenda, 2008). The choice of a primary data collection method depend on the purpose of the study, skills of the scholar, available resources, the socioeconomic-demographic as well as the characteristics of the study population Kumar (2005). This study used questionnaire with closed ended and open-ended questions. Questionnaires provide an efficient way of collecting responses from a large sample as the respondents will be responding to the same set of questions Lewis Thornhill (2009).

Kothari (2009) explains that a questionnaire should consist of a number of questions that are printed or typed in a definite way on a form or set of forms. Semi-structured questions were an effective way of collecting information within a short span and also because they are less costly compared to other data collection methods (Cooper & Schindler, 2011).

They consisted of a series of specific short questions which are either closed or open ended (Bryman & Bell, 2011). The closed ended were useful in eliciting factual information. On the other hand, open ended questions sought opinions, attitudes and perceptions of the respondents (Kumar, 2005). Open-ended questionnaire allows the respondents the freedom to respond with any value, words, statements which are of their own choice. The structured questions were accompanied by a list of possible alternatives from which the respondents selected answers that would best described their specific institution (Groebner, Shannon, Fry & Smith, 2008).

Closed ended items adopted a five likert scale since its more reliable and can give more information (Kothari, 2009). The scale ranged from 1 to 5 where 1 assumed strongly disagree and 5 a strongly agree scenario that the respondent is propelled towards entrepreneurship (Ida & Mahmood 2011).

Questionnaires have less reactivity effect or interviewer biased that can be created by the presence of the researcher (Gorard, 2004). Ngugi, Gakure, Waithaka & Kiwara (2012) used questionnaire on their study on application of Shapero's model in explaining the entrepreneurial propensity among University students in Kenya. Rankhumise & Ras (2012) used a questionnaire with structured & unstructured questions on the effectiveness of entrepreneurship education in Botswana.



### 3.6 Data Collection Procedure

Data collection technique is the process of gathering data from the sample so that the research can be answered (Bryman, 2012). It is an established method or practice of capturing data using a specific data collection tool (Mugenda 2008). In order to assess the existence of non respondents were early respondents compared with late respondents in order to identify the significance differences between the two groups.

Late respondents should be assumed to be similar to non respondents (Armstrong & Overton, 1977). Yucel (2011) tested non-response bias by comparing non-responding to responding respondents.

### 3.7 Pilot Study

A pilot study was carried out before the actual data was collected. A Pilot study is normally the first phase in data gathering process. Its main purpose is to detect any weaknesses in the design and instrumentation so that alternative data can be selected from the probability sample (Cooper & Schindler, 2011). Pilot study measures the reliability and the validity of the research instruments (Kothari, 2008). Pilot testing is used to detect the weaknesses in the design and also in its implementation as well as providing proxy for data collection probability sample (Cooper & Schindler, 2008). Pilot study also provides proxy data for selection of a probability sample (Saunders, Lewis & Thornhill, 2009).

Bryman and Bell (2011) explains that a pilot test ought to be comparable to the members of the population from where the whole sample was taken. A pre-test sample may be within a range of between 25 to 100. The respondents do not have to be statistically selected (Cooper & Schindler, 2011). A pre-test can be between 1% and 10% of the sample size (Gupta, 1993). After pilot study has been done, items that were not clear, those

that were confusing, and those that could cause biasness were either modified or omitted (Mugenda & Mugenda, 2003). The pre-test was conducted among students taking entrepreneurship and were in their fourth year of study from Muranga University and Kenya Methodist University (Nyeri Branch). This was done through purposive sampling technique.

### **3.8 Reliability of Data Collection Instrument**

Reliability is the proportion of variance attributed to the measurement of variable. It estimates the consistency of measurements within a given period of time (Mugenda & Mugenda 2003). Reliability measures the degree which a research instrument is able to yield results that are consistent after data has been repeated and tried (Gall & Borg, 2007). It is the one that answers the question on whether the results found in a study can be duplicated (Bryman & Bell, 2011). Reliability is able to estimate the degree to which a measurement may be free from errors Cooper & Schindler, (2011).

Kothari (2009) states that any measuring instrument can be said to be reliable if it can provide consistent results. This study used internal consistency type of reliability. It is a single instrument which correlates with one another in a separate or where items correlate among themselves when the content in an instrument is one (Abbot & McKinney, 2013).

Cronbach alpha ( $\alpha$ ) was used to test the reliability of the instrument. It calculates the average of possible split –half reliability coefficient. A Cronbach alpha ( $\alpha$ ) was used in order to ensure that the items have a good internal consistency (Bryman, 2012). A computed alpha coefficient varies between 1 and 0. If it's 1, it explains that there's a perfect reliability where 0 denotes lack of reliability. If the coefficient is 0, the instrument is considered as unreliable. The greater the coefficient, the greater the accuracy and

reliable an instrument's score is (Bryman & Bell, 2011). A Cronbach alpha that is 0.8 and above indicates a level of consistency that is reliable. Guyo, Golo & Dida (2013) used Cronbach alpha and obtained an alpha of 0.85 on their study on entrepreneurial intention and its determinants evidence from the University students from Addis Ababa Ethiopia.

### **3.8.1 Validity of Data Collection Instrument**

Validity refers to the degree which a sample of test items in question represents the content that the test is designed or intends to measure, Abbott & McKinney (2013). It considers whether the measurement of a certain concept measured that concept (Bryman & Bell, 2011). It is the degree in which an instrument measures that which it purports or supposed to measure (Mugenda & Mugenda, 2003).

Construct validity study is used to check if a measure of a given concept relates strongly with another measure which it ought to strongly correlate (Converging measures), or on the contrary a measure that it ought not to agree (Diverging measures) (Abbott & Mckinney, 2013). A construct validity is reflected where the scores that have been obtained from one measure are directly related to the variable (Gravetter & Forzano, 2006). Construct validity was used by Hatiz & Saad (2015) in their study on assessing the richness of entrepreneurship curriculum content: Empirical evidence.

**Table 3.3: Reliability analysis**

2nd order construct	1st order construct	Items number	Cranach's Alpha	Items removed
<b>Teaching methods</b>		<b>13</b>	<b>0.792</b>	Reliable
	(MD)	5	0.719	MD3
	(BIG)	4	0.828	BIG4
	(INN)	4	0.732	INN1
<b>Educators network</b>		<b>14</b>	<b>0.7</b>	Reliable
	(SL)	4	0.735	SL1, SL2, SL3, SL4
	(SON)	4	0.707	SON2, SON6
	(OR)	6	0.705	OR7
<b>Entrepreneurship curriculum</b>		<b>16</b>	<b>0.917</b>	Reliable
	(BP)	5	0.724	BP4, BP6
	(CS)	5	0.72	CS4, CS5
	(KS)	6	0.87	KS6, KS7
<b>Entrepreneurship Ecosystem</b>		<b>10</b>	<b>0.712</b>	Reliable
	(SB)	4	0.764	SB1, SB5
	(EP)	6	0.713	EP3, EP7, EP8
<b>Environment dynamism</b>		<b>16</b>	<b>0.863</b>	Reliable
	(T)	5	0.716	T2, T3, T4, T5, T9
	(MC)	6	0.717	MC1, MC2, MC3, MC7, MC9
	(G)	5	0.719	G5, G7
<b>Entrepreneurship propensity</b>		<b>18</b>	<b>0.917</b>	Reliable
	(SE)	7	0.857	None
	(D)	5	0.704	D2
	(F)	6	0.897	F1, F2, F8, F10
<b>Overall</b>		<b>88</b>	<b>0.94</b>	Reliable

Confirmatory factor analysis (CFA) is used to measure the convergent validity in a study. It considers the validity of a certain measure as a result of comparing the same concept that has been developed using other methods (Bryman & Bell, 2011).

It is demonstrated when there is a strong relationship between scores that have been obtained as a result of applying different methods that measured the same construct (Gravetter & Forzano, 2006). It is demonstrated if all factor loading are significant are greater than 0.50 (Chang, Lin, Chang & Chen, 2007). Rengiah & Sentosa (2015) applied factor analysis on their study on the effectiveness of entrepreneurship education in developing entrepreneurial intention among Malaysian University students. Moahammed, Aliyu & Ahmed (2016) also used confirmatory factor analysis to study entrepreneurship intentions among Nigerian University students.

### **3.9 Measurement and Scaling Technique**

Measurements involve the assessment of real numbers to certain attributes placed according to specified rules. Scaling on the other hand is the development of some systematic rules and meaningful units that have been used to represent some empirical observations (Mugenda, 2008). Measurement is used in order to correct or replace words that would otherwise be ambiguous hence provides a specific method of converting observation to a specified values that would allow standardization in measurement (Kumar, 2005).

A five point likert scale and open ended questions was used for data collection in this study. A five point likert scales are useful since they are reliable and can also provide extra information that is needed in the study Kothari, (2009). In this study, a five point likert scale was used where 1 represented strongly agree and 5 represented strongly disagree. The likert scale (Summated scale) was developed by utilizing item analysis approach.

Each item was evaluated on how well it discriminated between respondent whose total score is high and whose total score is low. Statements which best reflect discrimination is also included in the final instrument as stated by Kothari, (2004).

A likert scale is considered reliable because respondents are able to answer each statement as stated in the questionnaire. The scale was preferred because it is able to communicate interval properties to respondents and is able to produce data that can be assumed to be relating to an interval scale as stipulated in the questionnaire. Data collected under a likert scale can be evaluated easily through the use of standard technique (Montgomery Peck & Vining, 2001). The respondents ranked their entrepreneurial propensity as guided by the independent variables under study. The different attributes used in the ranking of each propensity are enumerated in the questionnaire.

### **3.9.1 Measurement of the Independent Variables**

Ahamed, (2005) categorized entrepreneurship teaching methods into two, the traditional method also called passive method and the active method. The active method requires the instructor to facilitate learning and not to control the class. The instructor applies the method that that will enable the student to have self discovery (Mwaslwiba, 2010). The study measured the teaching method by looking at the method of delivery, students' ability to generate new ideas as well as their level of innovativeness.

The educators' network is an education determinant. It can facilitate in the student getting an attachment with ease, get real exposure to the enterprise environment, and can create an enabling environment to develop human resource skills among the students (Thomason, 2009). The study analyzed how the educators were socially linked, how easy it was for them to get attachment and their ability to recognize new business opportunities.

A well developed entrepreneurship curriculum can instil knowledge and skills to students (Gibb, 2005). The curriculum variable was measured along the respondents' ability to develop a coherent business plan, how well they can handle a case study and also their level of skills and knowledge acquisition after the four year study.

Dynamic ecosystem has the ability to create new firms and consequently create jobs (Rosted, 2012). The term entrepreneurial ecosystem was coined by Moore (1993) to bring out the concept that businesses do not operate in a vacuum. Students within the institutions are influenced by the ecosystems around them. The study measured the extent that the surrounding businesses, the community around as well as the Government formulated policies has enabled them or disenabled them in inculcating a propensity toward entrepreneurship.

### **3.9.2 Measurement of Moderating and the Dependent Variable**

Environmental dynamisms refer to the frequent change that occurs in an environment (Wijbenga & Van Witteloostuign, 2007). It is the rate the customers' preferences and services change over time. When such changes occur, entrepreneurship is expected to behave in a way that they still remain competitive in the market place.

The technology changes, changes in the market place as well as the concept of globalization are the parameters that the study used to measure the moderating variable. A composite score for each measurement was obtained after averaging the responses across the items. A higher score reflected a higher level of construct (Idar & Mahmood, 2011). Entrepreneurial propensity was measured using subjective measures.

This is where entrepreneurial propensity was measured by gauging the perception of the respondents. The subjective measures sought to assess the individual's self efficacy, desirability to engage in entrepreneurship as well as feasibility.

### **3.10 Data Processing and Analysis**

Analysis is the computation of certain measurements along a pattern of relationship that exist among the group data (Kothari, 2009). It is the process of understanding the meaning of information that has been collected by bringing order so as to make a conclusion. Data analysis involves reducing the accumulated data and putting it in a manageable size. This is achieved as a result of developing summaries and applying statistical techniques (Cooper & Schindler, 2011).

In this study, the primary data collected through the data collection instrument was then be edited, coded, classified and then tabulated. The statistical package for social science (SPSS) version 20 was the tool used to do the analysis for the study. Data processing refers to processing of editing coding, and tabulating the collected data so that they can be analysed (Kothari, 2009).

Editing involves scrutinising the collected research instruments so as to minimise as much as possible errors, incompleteness and any gaps that that could have been obtained from the respondents in the process of collecting data (Kumar, 2005). Editing enables correction of errors and omissions as well as certifying that that the maximum data quality has been achieved. Coding is the process of assigning numbers to answers which are grouped in a limited number of categories. Tabulation involves summarizing raw data and displaying it in a form that it can be analyzed (Cooper & Schindler, 2011).



The descriptive statistics was presented in form of frequency distribution, measures of central tendency such as mode, mean and median, (Singh, 2007). The descriptive statistics helps to simplify the results that have been obtained in the research studies (Kothari, 2009). The result of the data that was obtained was presented in form of frequency Tables, bar charts, graphs and pie charts. The questions that were open-ended were later coded. The coded data was then interpreted and the frequencies determined through cross tabulations to reflect the differences between the respondents and the coded central tendencies of the responses to each factor analyzed (Kumar, 2005). Amiri, Fathi, Naderi & Delangizan (2016) used descriptive statistics on their study on identifying the impact of entrepreneurship education on the attitude of students towards entrepreneurship.

Factor analysis refers to a general term for several specific computational techniques that has been used to examine patterns of relationship among the selected variables (Cooper & Schindler, 2007). Factor analysis was used on environmental dynamisms and entrepreneurial propensity. This was done using the principle of component method (Singh, 2007). Factor analysis is used in order to condense the information that has been obtained in the original variables to smaller set of variants or factors to minimise loss of important information. The factors with a value of .50 or greater are considered significant (Hair, Black, Babin & Anderson, 2010). Dermol & Rozman (2014) used factor analysis on his study on moving forward- entrepreneurship education for sustainable economy.

Kaiser-Meyer-Olkin (KMO) is a measurement used to quantify the degree of correlations that exists among the variables under study (Hair, Black, Babin & Anderson, 2010). Kaiser-Meyer –Olkin (KMO) was used in this study. The index for this test ranges from 0-1.

The closer a value is to 1, the more the significant the correlations among the selected variables. Bartlett test sphericity was used to reveal the statistical probability that the correlation matrix has significant correlations among some variables being studied (Hair, Black, Babin & Anderson, 2010). Mohamed, Aliyu & Ahmed (2015) used Kaiser Meyer to quantify the degree of relationship among variables on a study about entrepreneurship intention among Nigerian University students. Kunday, Cakim (2014) also used Kaiser-Meyer on a study that was about the moderating role of entrepreneurship education and family tradition on the relationship between self-esteem and entrepreneurial intention.

Self-report measurement has been known to give rise to responses that are biased and common method variance problems (Strandholm, Kumar & Subramanian, 2004). Confirmatory factor test analysis was another test applied in the study to address the issue of common method variance. All variables were entered at the same time into a factor analysis. Common method variance was then considered. When a confirmatory factor emerged from a factor analysis or even if a general factor reflected a large variance (Podsakoff & Organ, 1986). Biasness and confidentiality was addressed and guaranteed in order to reduce respondent's evaluation apprehension (Podsakoff, MacKenzie, Lee & Podsakoff, 2003) Tung (2011) used confirmatory factor analysis in his study on the impact of entrepreneurship education on entrepreneurial intention of engineering students. Susan, Jakope & Krekar (2015) also used confirmatory factor on verifying the model of predicting entrepreneurial intention among students of business and non-business orientation.

Structural Equation modelling in analysis was used to explain the existence of relationship between entrepreneurship education, environmental dynamisms and entrepreneurship propensity using SPSS version 20 (Lu, Lai & Cheng, 2007). According to Bollen (1989), structural equation modelling was based upon the analysis of causal modelling.

The technique allowed direct and indirect relationships of multivariate relationships to be investigated simultaneously (Kline, 2005). Inferential statistical are measurements used for making inferences from findings based on sample observations that is from to a larger population (Babbie, 2004; 458). Malebana, (2012) used statistical package for the social science (SPSS) in his study on entrepreneurial intention of final year commerce students in the rural provinces of South Africa. Confirmatory Factor Analysis was used to assess whether the coefficients that are associated with specific paths in the model differ significantly (Warner, 2008) and it was used to reduce measurement errors (Singh, 2007). It allowed the observed measurement indicators to be specific based on the selected theories. It is used to statistically specify the relations of the indicators to the posted unobservable measures. The Confirmatory Factor Analysis allows the study to specify correlations of the measurement factors, specifies associations of the observed measurements and specifies the associations of the observed measures with the unobserved measurement residual variance of the error terms (Chao & Spillan, 2010).

### **3.10.1 Model fit Measurement indices**

Smart PLS offers SRMR, NFI and RMS theta were used in this study for measuring model fit indices. For SRMR, a value  $< 0.08$  indicates that the model is fit, while a value that is  $> 0.09$  shows that the model fits the threshold in the NFI model test. Standard root mean square residual (SRMR) is a measure of the mean absolute value of the covariance residual based on transforming covariance matrix and the predicted covariance matrix into correlation matrices. SRMR is defined as the difference between the observed correlation and the model implied correlation matrix. It allows the researcher to assess the average magnitude of the discrepancies between what is observed and what is expected. A value less than 0.10 or 0.08 are considered fit (Henseler, 2014).

It is used in order to avoid model misspecification (Henseler, 2014). Smart PLS provides bootstrap based on statistical inferences of SRMR criterion. SRMR bootstrap confidence interval results indicates the exact model fit.

Normad Fit index (NFI) was the first measure to be proposed by SEM literature ( Bentler & Bonett, 1980). It is used to compare  $\chi^2$  values of the model that has been proposed and then compares it against a set of meaningful benchmarks. Since  $\chi^2$  value does not provide enough information that can be used to judge the model fit, NFI uses  $\chi^2$  value for the null model as a measure. NFI results are values between 0 and 1. The closer the NFI is close to 1, the more fit the model is. NFI values that are above 0.9 are usually accepTable (Lohmoller, 1989). NFI represents incremental fit measure. It however does not penalize model complexity and this is often seen as its disadvantage. The more the parameters are in a model, the better the NFI results.

RMS theta is the root mean squared residual covariance matrix of the outer model residuals (Lohmoller, 1989). It will be used to assess the reflective models. RMS theta is used to assess the degrees to which the outer model residuals correlate. For measurement to fit, it should be closer to zero indicating the outer model residuals are very small.

RMS builds on the outer model residuals that different between predicted indicator values and the observed indicator values. For the predicting indicator values, Smart PLS should have latent variable scores. Although RMS theta computation is used to assess common factor models that have been computed by smart PLS, it exists only for the composite models that have been computed by smart PLS (Henseler, 2014). Values that are below 0.12 indicate a well fitting model while those with a higher value indicate lack of it.

### **3.10.2 Testing for Type I and II Errors**

Wrong interpretation can affect a study. This may arise as a result of the testing of the hypothesis due to influence of type I or type II errors. Type I error occurs when the null hypothesis is rejected when it is true. A type II error occurs when a study accepts a false null hypothesis when it ought to be rejected (Zikmund, 2003; Nachmias & Nachmias 2004; Cooper & Schindler, 2006). A type I error is considered to be more serious than the type II error and reducing the probability of a type II error increases the probability of a type I error (Cooper & Schindler, 2006).

Studies have shown that to control type II error largely depend on the level of statistically significance that the study has set up for testing the hypotheses. Conventional levels are  $p < 0.001$ ,  $P < 0.01$  and  $p < 0.05$  (Nachmias & Nachmias, 2004). The hypothesis that was tested by this study was tested within the threshold of the conventional significance levels. In order to ensure that the probability of committing type I error was avoided, the decisions that were made out of the recommendations in this study had a relatively low chance of being misleading. Zikmund (2003) recommends that a type II error can be addressed through the sample size that is appropriate for the study and also by ensuring that the sample size is relatively large.

### **3.11 Ethical Considerations**

The study ensured integrity and that the dignity of the respondents was protected. To achieve this, prior to data collection, an approval letter was obtained from Dedan Kimathi University. The researcher was also allowed to collect data from the respondents by the National Association of Commission for science Technology and Innovation (NACOSTI). Besides that, the data collection tool was designed to be objective.

The participants gave information voluntarily. No one was forced or coerced to answer any question(s). The researched data was secured throughout the research period and no individual information provided was divulged to any other party in order to ensure confidentiality. Upon the completion of data collection, the data collected was treated with confidentiality to ensure that all privacy of the respondents was maintained. The findings of the study were reported accurately and represented what was provided and the results were not presented in a way which would take the findings out of context, deceive readers, exaggerate claims or focus on smaller parts of the observation and failing to put them into perspective.

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSION

#### 4.1 Introduction

The objective of this chapter was to provide analysis of the results and interpretation of the research findings. A qualitative analysis of the open-ended questions was undertaken. Several steps were embarked towards ensuring a good build up of the quantitative model as well as key general guidelines for structuring a quantitative model. The analysis was conducted using two phases. The first phase consisted of the confirmatory measurement model and the second phase was the confirmatory structural model.

#### 4.2 Response Rate

A total of 180 questionnaires were distributed to respondents out of which 156 questionnaires were successfully filled and returned. This represents a response rate of 87%. Fosnacht (2013) posited that a response rate of 75% and above is acceptable. This response rate was thus deemed acceptable. This study's response rate is similar to other entrepreneurship education studies for instance a study by Afriyie (2014) on 'Entrepreneurship Education and Entrepreneurial Culture among University Students in Cape Town which had a response rate of 75.5 %. Najafi (2016), who studied on the moderating role of entrepreneurial orientation on the relationship between entrepreneurial skills, environmental factors and entrepreneurial intention and reported a response rate of 87.5%.

#### 4.2.1 Respondents by Gender

The male respondents were 49.4 % and 51 % female as shown in Table 4.1. The two percentages are very close. The admission of students to a degree course was either out of University joint board admission or personal choice hence it can be argued that the percentages cannot be translated to an inclination towards entrepreneurship however, studies have revealed that women play a substantial role in entrepreneurship throughout the world Estes (1999). In advanced market economies, women own 25% of all business in Africa, Asia, and Eastern Europe and in Latin America is increasing rapidly Jalbert (2000).

In United States of America alone, 6.7 million privately held majority are women owned businesses and they account for 1.19 trillion and employ 9.8 million people and the growth of women-owned businesses all over the world can be termed impressive (women owned Business, 2004).

In general, it has been assumed that women female prefer engaging in business than men. This can be attributed to the flexibility of time that businesses offer comparing the multiple duties that women have to jungle around. This study revealed that female students are pursuing entrepreneurship more than men.

**Table 4.1: Distribution by Respondents Gender**

Gender	Frequency	Valid Percent
Male	77	49.4
Female	79	50.6
<b>Total</b>	<b>156</b>	<b>100</b>



#### 4.2.2 Respondents by Age

The students aged between 20-25 represented a majority of (85%) as shown in Table 4.2. A few (10.3 %) respondents were between 18-20 years. Unlike the traditional theories of entrepreneurship, the modern theories of entrepreneurship focus on entrepreneurship as a career option among active and young individuals (Parker, 2004). Ages of education are components of the individuals' human capital and they are considered as important factors of entrepreneurial activity (Parker, 2009).

**Table 4.2: Distribution of Respondents by Age**

Age	Frequency (n)	Valid Percent (%)
18-20	16	10.3
20-25	132	84.6
25-30	5	3.2
<b>Total</b>	<b>156</b>	<b>100</b>

#### 4.2.3 Respondents Operating a Business

Majority of (51%) were students who had started business while still at the University, while a few (49%) had not started any business as indicated in Table 4.3. Reinhart & Rogoff (2012) stated financial, management, marketing, production and technology problems as some of the factors that hinder entrepreneurship students from engaging in entrepreneurial activities while at the University. Reinhart & Rogoff (2012) goes on to state that these are the same problems that face small enterprises as well as start up businesses. In Kenya, the concept of students working and studying is very new and not fully embraced unlike in the developed countries where students go to school and can also work on part time.

The Kenyan education is tailored in such a way that a student is only expected to engage in classroom work and can only venture in business or seeking employment after graduation and gets to interact with a working environment during attachment. This culture is however changing though very slowly. Entrepreneurship students in Kenyan Universities are now trying to engage in entrepreneurial activities while in the University. This will enable them to practice what they are being taught in entrepreneurship classes. Considering that students are exposed to modern technology such as the internet, they can as well try to engage in international businesses and especially now that the world is well connected through technology and this will enable them cope with the dynamisms of the environment, hence ensuring competitiveness in the world of business.

**Table 4.3: Distribution of Respondents in a Business**

	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	75	48.7
No	79	51.3
<b>Total</b>	<b>154</b>	<b>100</b>

#### **4.2.4 Respondents whose parents are Entrepreneurs**

Entrepreneurship Students whose parents are entrepreneurs comprised a majority (54%) and those whose parents were not entrepreneurs were a few (46%) as indicated in Table 4.4. A study by Harrison & Hart (1992) on 'Factors influencing new business formation: A case study of Northern Ireland indicated that there are some predisposing factors which guide students towards entrepreneurship. He pointed out that parental influence, family and work experiences are factors that can propel entrepreneurial propensity among students.

Harrison & Hart (1992) noted that entrepreneurship aspiration tend to come from homes where parents had their businesses and the aspiring students might have received significant responsibility while they were young to such an extent that they were engaged in their parents entrepreneurial venture.

Although the African culture is not very keen in allowing their children to participate in family business compared to the Asians, Indians, European and American Communities, having a parent who are entrepreneurs increases the chance of their children becoming entrepreneurs by 1.3 to 3.0 (Adersson & Hammarstedt 2010 & 2011). The idea of children participating in their parents businesses is slowly changing. Having parents who are entrepreneurs can be a motivating factor and they can nurture the business mindset of their students. Chances of the children doing better than their parents is also high especially if proper guidance is offered. The young mind stand a chance of withstanding and overcoming the market changes by doing more research on business concept before launching it, more than their parents would probably do hence children stand a higher chance of being successful despite the dynamisms in the enviroment.

**Table 4.4: Distribution of Respondents whose Parents are Entrepreneurs**

	<b>Frequency(n)</b>	<b>Valid Percent (%)</b>
Yes	84	53.8
No	72	46.2
<b>Total</b>	<b>156</b>	<b>100</b>

#### **4.2.5 Respondents Pursuing Entrepreneurship**

University students pursuing entrepreneurship degree out of their own choice represented a majority of (56%) and those who were doing it as a result of admission by the University board to pursue a Bachelors degree in entrepreneurship represented few of (39 %) as shown in Table 4.5.

Students' decision to take entrepreneurship course out of personal choice may be influenced by successful role models. Lookwood (2006, p.36) In his study, Lookwood (2006) defined a role model as one who provides an example of the kind of success that one may achieve and often provide a template of the behaviour that are needed to achieve success. Various studies have indicated array of potential drivers that propel individuals toward entrepreneurship as a career option (Ahamed, 2010).

A blend of factors such as culture, family, role models, education, work experience and personal orientation has been noted as some of that factors that increase entrepreneurial propensity (Ahamed, 2010). It has generally been acknowledged that those individuals who choose entrepreneurship course have an intention of making it a career choice and have resulted to it as a result of the pull factors which eventually determine and shape their chosen entrepreneurial path (Matlay & Storey, 2003).

It could also be caused by the fact that unlike in the past when engaging in business seemed fit for those who had failed in academics; today the elite are embracing entrepreneurship and are willing to practise that which they have learnt hence education is contributing in inculcating entrepreneurial propensity among the students. It can allow be argued that the curriculum exposes the students to the real world of business both locally and internationally. This increased level of awareness does not only increase their entrepreneurial knowledge but it also allows them to assume the strategies they are likely to apply would they find themselves engaging in business either locally or internationally. With the understanding of the challenges in the markets, the need to continuously being creative and innovative, students would stand a chance of surviving their businesses in the competitive market place.

**Table 4.5: Distribution of Choice to Pursue Entrepreneurship Course**

	Frequency(n)	Valid Percent (%)
Personal Choice	87	55.8
Parents or guardian choice	9	5.8
Admitted by the University	60	38.5
<b>Total</b>	<b>156</b>	<b>100</b>

#### 4.2.6 Respondents by Need to Change another Course

On whether the students had wished to change their degree course, majority (79 %) of the respondents admitted to never wishing to change from entrepreneurship degree to another degree course while a few (21%) admitted to have desired to change to another program as indicated in Table 4.6. Dyers (1994) model of entrepreneurship explains four components of entrepreneurship career choices. The components are career selection, career socialization, career orientation and career development (Dyer 1994). Students' wiliness to pursue a degree in entrepreneurship is an indication that the way entrepreneurship is being viewed as a career option is slowly changing with people accepting entrepreneurship as a better source of income than formal employment. Such a positive attitude is a sign of preparedness to overcome local challenges to entrepreneurship as well as international barriers.

**Table 4.6: Distribution by Need to Change to another Course**

Changing toAnother Course	Frequency (n)	Valid Percent (%)
Yes	33	21.2
No	123	78.8
<b>Total</b>	<b>156</b>	<b>100</b>

#### 4.2.7 Respondents by Appreciation of Taking Entrepreneurship Course

On whether the students appreciate having taken the course, majority (94%) of them indicated that they appreciated taking the course. Only a few (9%) students admitted to not appreciating the decision of taking the course as shown in Table 4.7. Individual career choice can be attributed to personal factors such as entrepreneurial attitude and entrepreneurial passion. The Shapero & Sokol model (1983) explains the process in which an attitude towards entrepreneurship is changed to eventually become behaviour.

The pull factors may be as a result of positive inclination that may be triggered by a business partner, successful investor, a customer or a mentor. The attitude which eventually translates to behaviour depends highly on the credibility of the existing alternative and the propensity to act (Shapero & Sokol, 1983). Appreciating taking entrepreneurship course can be a clear indication that the students attitude towards entrepreneurship had been transformed and that they were willing to act on it, hence a behavioural change as is supported by Shapero & Sokol model (1983). With a positive attitude towards entrepreneurship, the students can equip themselves to face the dynamisms in the market such unfair completion, change of customers taste and preference and strategies on how to overcome in order to remain competitive.

**Table 4.7: Distribution by Appreciation of taking the course**

Appreciating taking the course	Frequency (n)	Valid Percent (%)
Yes	147	94.2
No	9	5.8
<b>Total</b>	<b>156</b>	<b>100</b>

### 4.3 Descriptive Analysis of Entrepreneurship Teaching Method

The first objective of the study was to establish the role of entrepreneurship teaching method in inculcating entrepreneurial propensity among the students. Mwaslwiba, (2010) points out two methods that have been used to teach entrepreneurship, that is, a traditional method and an innovative method. The traditional method is passive and innovative. It is action based and entrepreneurial in nature. To achieve this objective, respondents were asked to identify items that are related to teaching and had played a role in propelling them towards entrepreneurship as a career choice.

In their response, majority (53%) indicated that the method used to teach entrepreneurship was theoretical while few (45 %) indicated that the instructors used practical and theoretical method in their teaching as shown in Table 4.8. The key to successful entrepreneurship education is to find the effective way to manage the teachable skills and identify best match between students' needs and teaching techniques (Lee, 2007). Hytti and O'Gorman (2004) suggest that the way entrepreneurship is taught depends on the objective of the education.

If the objective is to equip individuals with entrepreneurship skills, that are applicable to work, then the best method would be to offer education and training. If the objective is to prepare the individual to act as an entrepreneur, the effective method is to facilitate experiments by trying entrepreneurship out in a controlled environment (innovative method). Since one key objective of any University which has taken entrepreneurship education seriously is to enable students practice entrepreneurship, it is important to consider innovative method of teaching entrepreneurship as opposed to traditional method.

An innovative method will enable students to start up businesses while in the University or upon graduation. This also means that, innovative method leads to an entrepreneurial attitude and ignites an entrepreneurial passion irrespective of the environmental dynamisms. In today's world, any firm that is not innovative dies. It is forced out of the market by the firms that are willing to adopt to new technologies and new methods of business operations hence being innovative is very key in ensuring business success.

**Table 4.8: Results of Teaching Method**

<b>Entrepreneurship Teaching Method</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Practical	3	1.9
Theoretical	82	52.9
Both practical and theoretical	70	45.2
<b>Total</b>	<b>155</b>	<b>100</b>

On how well the students were prepared to start an enterprise upon graduation, majority (75%) of the respondents indicated that they were prepared to start an enterprise while few (18%) were undecided as indicated in Table 4.9. Individual decisions to start a business can be affected by factors such as personalities, cognitive attributes, social networks, prior knowledge, market experience and industry conditions (Ardichvili *et al.*, 2003; short *et al.*, 2010).

Factors such as Personality, cognitive attribute, social networks, prior knowledge and experience in the market industry play an important role to determine whether a person becomes an entrepreneur or not. It is because of such indicators that scholars have kept arguing on whether entrepreneurs or born or made. This is because, besides learning, other environmental and personal characteristics can shape an individual towards becoming an entrepreneur. This was also the basis of argument in this study.



According to this study, by the time students are in their fourth year, majority of them are determined to engage in entrepreneurial activities. Hence the study can conclusively support the school of thought that entrepreneurship can be learnt. Bringing in the environmental dynamism concept is vital in recognizing the rate of students' rate of preparedness to compete with a changing world.

**Table 4.9: Results of Preparedness to Start a Business**

<b>Preparedness to Start a Business</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	116	75.3
No	10	6.5
Not fully decided	28	18.2
<b>Total</b>	<b>154</b>	<b>100</b>

On whether the teaching method used made them develop positive attitude towards innovation, majority (76%) admitted it did while few (24%) indicated that the method did not make them develop a positive attitude towards innovation as is indicated in Table 4.10. Innovation is a tool which enables wealth creation through development of new products and services (Stevenson, Gumpert 1985; Kuratko & Hodgetts 2001).

When a positive attitude toward innovation is inculcated among students, it means they have developed a desire to come up with new products or even attempt to improve the ones in the market hence opening up opportunities' for self employment and employment for others. Innovation is vital in employment creation and economic development and revitalizing a Country. There can never be successful entrepreneurship without innovations. Considering the world is daily changing, the students ought to be proactive to cope with the changes in the market place.

New products are arriving in the market all the time hence rendering the old products obsolete. It is therefore of paramount importance that entrepreneurship students embrace and remain afloat with the new product innovation as that would be the only way to remain relevant in the market.

**Table 4.10: Results of Innovativeness acquisition**

Innovative acquisition	Frequency (n)	Valid Percent (%)
Yes	117	76
No	37	24
<b>Total</b>	<b>154</b>	<b>100</b>

The study endeavoured to find out the extent to which the respondents were exposed to innovation competition as a learning method. Majority (71%) responded by indicating that they did not have that exposure, while few (29 %) said they have attended such a competition as indicated in Table 4.11.

The theory of experiential learning supports that entrepreneurial activities are dynamic (Shane, 2001). Exposing students to innovation competitions is a learning method where they observe different tools and equipments which have been modified to fulfil specific purpose. Entrepreneurship cannot be detached from innovation. Innovation is the basic tool of entrepreneurs (Drunker, 1993). It is the means used by entrepreneur to exploit opportunities and come up with new or improved products or services. Bearing in mind the role that innovation plays, exposing entrepreneurship students to such competitions would facilitate a desire to be creative and innovative. Entrepreneurship Students can also use such forums to showcase their own innovation as they learn what others have also done.

During such forums, the students are likely to know which products are current or what is trending in the international market. It is also a learning moment and a moment of networking even with students from other Universities and other Nation hence transfer of knowledge that can be used in the global market.

**Table 4.11: Results of Innovation Competitions Exposure**

<b>Innovation Competition Exposure</b>	<b>Frequency (n)</b>	<b>Valid Percent(%)</b>
Yes	44	28.9
No	108	71.1
<b>Total</b>	<b>152</b>	<b>100</b>

On whether the students felt that their business ideas would be supported by the Universities in the area of financing, few (49.7%) admitted that the Universities would offer such a support while majority (50%) were of the opinion that financial support for a business idea would not be awarded by the University as shown in Table 4.12. Universities depend on Government schemes or private sector funding or a combination of both with an aim of becoming self-sufficient (Government private partnership, 2010a, 2010b).

Different universities address the financial needs differently. It ranges from revenues from licences, sales of shares, entrepreneurship training courses, business consultancy among others. Supporting individual entrepreneurship idea can be an uphill task to any institution. This would require creating extra hours for extra activities by both the students and the instructor. It would also mean creating space for experimentation.

Considering the constrainers' resource that universities operate with, can explain why locating extra resources to enable entrepreneurship ideas support has not been realized. Few (49.7%) expressed their opinion on the possibility of entrepreneurship ideas being supported.

If all the channels are properly exploited maybe supporting entrepreneurship business ideas can be realized. For instance engaging outsiders who won't heftily charge the Universities, use of the free space in the University experimentation can be facilitative in supporting entrepreneurship business ideas that the ongoing students come up with. Supporting entrepreneurship ideas from students either financially or offering a conducive environment for idea generation may, in the long run help Universities address their financial constraints. Students can come up with a wide range of innovations which may become income generating.

**Table 4.12: Results on Support for Innovative Business Ideas**

<b>Support for innovative ideas</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	74	49.7
No	75	50.3
<b>Total</b>	<b>149</b>	<b>100</b>

Teaching method was measured using the likert scale and results expressed in percentages as tabulated in Table 4.13. The results showed that majority (58%) appreciated the method used to teach entrepreneurship, few (18%) did not appreciate the method used and 24% of the respondents were neutral. On whether they were fully engaged in class, majority (61%) said they were fully engaged in class, few (20%) admitted they were not fully engaged and (20%) were neutral. On whether they thought their instructors were knowledgeable in the area, majority (79%) said they were, while (13%) of the respondents' were neutral and few (8%) stated that they were not knowledgeable in the area. Asked whether they acquired entrepreneurship skills, majority (78%) admitted to have acquired the skills, while few (13%) said they did not and (11%) of the respondents were not sure.

On whether the universities have sufficient resources for entrepreneurship education, majority (41%) admitted that the University have sufficient resources, few (25%) stated that the resources were not sufficient and (33%) of the respondents were neutral as shown in Table 4.13.

Gibb (2005) stated that entrepreneurship education is about learning for entrepreneurship and learning about entrepreneurship. Entrepreneurship students are expected to take more responsibility for themselves and their learning (Gibb, 2006, Remes 2001; 2004). The acquisition of skills and knowledge by majority (78%) of the students and few (61%) admitting to be fully engaged as shown in Table 4.13 indicate that the method of delivery had the ability to trigger the entrepreneurial propensity of students towards entrepreneurship. This finding indicates that entrepreneurship can be learnt.

Timmons and Sinnerli (2006) noted an increased growth of students willing to become entrepreneurs. A study by Baron & Shane (2008) noted that entrepreneurship courses are offered in either management or business schools and noted that the numbers were rapidly increasing close to 78% especially among the top institution of learning in USA. Despite the fact that entrepreneurship education has been embraced by many Nations, the teaching method still differs from country to country depending on the specific objective that the Country wants to achieve. The main objective of introducing entrepreneurship education in Kenyan curriculum is to address the problem of unemployment. Hence the methods that instructors use should be tailored towards addressing the problem of unemployment and how the students can positively consider self-employment as a career option.

**Table 4.13: Distribution of the Assessment on Entrepreneurship Teaching Methods**

Teaching Method	S A (%)	A (%)	N (%)	D (%)	S D (%)	M (X)	Std Dev
ETM 1	16	42	24	9	9	2.53	1.14
ETM 2	18	43	20	9	11	2.53	1.20
ETM 3	40	39	13	5	3	1.91	0.99
ETM 4	39	39	11	7	6	2.03	1.14
ETM 5	10	31	33	18	7	2.81	1.08

#### **4.4 Analysis for Educators Network and Entrepreneurial Propensity**

The second objective of the study was to establish the relationship between educators' network and entrepreneurial propensity among entrepreneurship University students in Kenya. Asked if the respondents benefited from their lecturers network, majority (73%) said they did not benefit and few (28%) admitted to having benefited from their lecturers networks as revealed in Table 4.14. Gatchalian (2010) supports educators' network. He argues that the network enable the educators acquire tacit knowledge which can facilitate their teaching competences. This kind of knowledge can be accessed at the private companies, Government agencies or even at the business development services (Klyver, 2007).

The nature of networking is determined by the motivation of the individual to acquire what the person desires from the other person. The study revealed that the students did not benefit from the educators network. For a very long time, Kenyan education has been treated in a very formal way where the student teacher relationship is very narrow. It is this formal way of teaching that the educators may not have felt comfortable introducing the students to their networks.

It is vital to rethink this student's educator's relationship as the educators networks can be of great benefit to the student as Thomson (2009) suggested in his study, educators network can help students access their attachment opportunities in a real enterprise environment. For the four years that students are in the University, exposing them to various networks will not only enable them access attachment opportunities' with ease, but they can also access mentors who are very key in enabling entrepreneurship propensity.

**Table 4.14: Results on Educators Network**

<b>Educators' Network</b>	<b>Frequency (n)</b>	<b>Valid Percent(%)</b>
Yes	42	27.5
No	111	72.5
<b>Total</b>	<b>153</b>	<b>100</b>

On whether the respondents were assisted by the educators to get attachment, majority (85%) of the responded said they did not get any assistance for their attachment from their educators and few (15%) admitted to have got some form of assistance as revealed in Table 4.15. The failure of the educators to assist students to get attachment was due to the fact that the students were not benefiting from the educators network. Accessing appropriate place for attachment has been an uphill task for entrepreneurship students in Kenya.

The educators are more exposed to the world outside the institutions and therefore if a strong relationship existed between the students and the educators, the issue of accessing attachment could be made easy. Only entrepreneurship educator would be able to tell an appropriate place where a student can practise what they have learnt in class. Boe (1994) argued that networking enables an individual add their own value and also attract other people to that network.

As a result, entrepreneurship students can benefit from their educators' network hence adding value to the already existing network. However this study reveals that the respondents did not benefit much from the educators' networks and consequently it did not contribute in inculcating an entrepreneurial propensity among entrepreneurship students.

**Table 4.15: Results on Respondents Attachment Assistance**

Attachment Assistance	Frequency(n)	Valid Percent (%)
Yes	23	14.8
No	132	85.2
<b>Total</b>	<b>155</b>	<b>100</b>

On whether their educators invited guest speakers to speak to them, majority (63%) of the responded said they did not while few (37%) said they did as indicated in Table 4.16. Failure to invite guest speakers can be attributed to poor or lack of networks. Networking is not restricted to specific situations, each opportunity can be considered as a networking opportunity (Boe, 1994). Students can look at guest speakers as role models that they can imitate in future operating their own enterprises. They can also learn from their practical experience. From the experiences they may have had, entrepreneurship students can then learn how to avoid making certain mistakes when they start operating their own enterprises as supported by experiential learning theory.

Gartner (1988) explains that an entrepreneur assumes different roles during different process. Each role requires a set of unique set of skills which later translates to a unique learning exercise which entrepreneurship students can benefit. Hence listening to guest speakers can be of great benefit to entrepreneurship students pursuing a bachelor in entrepreneurship and would consequently propel them to incline towards entrepreneurship as a career option.



**Table 4.16: Results from Respondents' on Guest speakers**

<b>Guest Speakers</b>	<b>Frequency</b>	<b>Valid Percent</b>
Yes	58	37.4
No	97	62.6
<b>Total</b>	<b>155</b>	<b>100</b>

Educators network was measured using the Likert scale and the results, expressed as percentages as tabulated in Table 4.17. On whether their educators networked among themselves and not with entrepreneurs outside the University, majority (39%) disagreed, while few (28%) agreed to the fact that educators networked among themselves while (33%) of the respondents remained neutral. On whether the students had little to learn from their social links, few (34%) disagreed, majority (39%) agreed to the fact that they had little to learn from their educators networks while (31%) of the respondents remained neutral. Asked if networking determines entrepreneurship success, a few (16%) admitted it did while majority (69%) indicated no relationship between networking and success while (15%) were neutral. Among the respondents, few (25%) admitted that networking is a new concept in Kenya, majority (54%) indicated it is not a new concept while (20%) among the respondents were neutral as indicated in Table 4.17.

One of the ways that student can benefit from educators network is enabling students access attachment from an enterprise environment (Thompson, 2009). For entrepreneurship learning to be effective, it is important to personalise it, make it as informal, collaborative and competence based as much as possible as well as making it flexible and dynamic as possible (Gatchalian, 2010).

Supportive tools, such as social networking should be availed in order to facilitate learning inside and outside the institution. Network can be assessed in private companies, successful entrepreneurs or through Government agencies, areas that entrepreneurship students should be exposed to.

**Table 4.17: Results on Educators Social Networks Assessment**

Social Network	S A (%)	A (%)	N (%)	D (%)	S D (%)	M (X)	Std. Dev
EDN1	8	20	33	25	14	3.17	1.15
EDN2	16	20	31	24	10	2.92	1.21
EDN3	6	10	15	34	35	3.82	1.19
EDN4	9	16	20	33	21	3.41	1.24

Rate of preparedness was measured using the Likert scale and the results, expressed as percentages as tabulated in Table 4.18. On whether they are able to recognise a business opportunity, majority (86%) indicated they can recognise a business opportunity, while (10%) were neutral and few (4%) admitted they would have difficulty recognizing a business opportunity. Asked if they were prepared to start a business when they graduate, majority (73%) indicated they were prepared, few (8%) admitted that they were not prepared to start while (20%) of the respondents' remained neutral. Asked whether they will seek formal employment when they graduate, majority (33%) said they would while, few (24%) indicated that they will not seek formal employment.

On whether one requires a degree to become a successful entrepreneur, majority (62%) agreed that a bachelors degree in entrepreneurship is important to guarantee business success, few (21%) indicated it was not necessary in determining entrepreneurship success while (18%) of the respondents were neutral.

On whether they will do better in business now that they are educated, majority (77%) agreed that they would perform better than those with a lower level of education, while few (11%) admitted that they wouldn't while (13%) remained neutral. With majority (77%) admitting that they would perform better, it means education has a role in preparing on how to operate a business enterprise. It is also an indication that entrepreneurship education plays a vital role in inculcating entrepreneurial propensity among entrepreneurship students.

The main purpose of introducing entrepreneurship education especially in African Countries was to influence an inclination and propensity towards entrepreneurship hence positively influencing the students towards entrepreneurship as career choice (Byabashaija, Katon & Isabaliya, 2010). The Government of Kenya has tried to sensitize young people to be positive about self-employment. With the high rate of unemployment in Kenya, the Government has introduced easy access to funds by lowering interest rate, has introduce youth enterprise fund and even the introduction of entrepreneurship education is all a pursuit towards encouraging self-employment. University students taking entrepreneurship must have come to this realization and this is supported by the 73% who reported their readiness to start their own ventures upon graduation.

**Table 4.18: Results on Self-Employment upon Graduation**

Self-Employment	SA (%)	A (%)	N(%)	D (%)	SA (%)	M (X)	Std Dev
EDN 5	41	45	10	3	1	1.76	0.79
EDN 6	32	41	20	5	3	2.06	0.97
EDN 7	13	20	42	11	13	2.91	1.18
EDN 8	3	3	13	42	39	4.13	0.93
EDN 9	35	27	18	11	10	2.34	1.32
EDN 10	50	27	13	7	4	1.88	1.11

#### 4.5 Descriptive Analysis of Entrepreneurship Curriculum

The third objective of the study was to assess the relationship between entrepreneurship curriculum and entrepreneurial propensity among entrepreneurship University students in Kenya. Majority (86%) of the respondent indicated they were able to write a business plan, while few (14%) admitted they were not conversant with business plan writing as indicated in Table 4.19. Curriculum is one of the determinants of entrepreneurship education. Katz (2003) ascertains that entrepreneurship education curriculum is best placed to equip students with the necessary entrepreneurship skills that are required to prosper in a working environment. Bell (2015) stated that entrepreneurship curriculum should develop the attitude of student's behaviour and capabilities that can be applied during the student's career as an entrepreneur.

Kuttim (2014) highlighted that the courses advanced should provide entrepreneurial skills for contemporary work in today's living environment through an enterprising behaviour. Quest for entrepreneurship education is to develop knowledge and the procedure that is needed to start and grow a successful enterprise (Gibb, 2005). To achieve this third objective of the study, respondents were asked to respond to items testing whether the curriculum they had covered played a role of inculcating an entrepreneurial propensity.

Business plan writing is an important element in entrepreneurship curriculum. Prospective business founders such as entrepreneurship students are advised to develop a business plan before starting their prospective ventures. A study by Van Auken & Sexton (1985) found that 20% of non business planner failed within the first three years. In order for a business to maintain a firm grip on its market share and withstand the market competitiveness, comprehensive planning is required.

With a high number (86%) of University students knowing how to develop a business plan means entrepreneurial propensity is attained by University students in Kenya and that proper coverage of entrepreneurship curriculum can result in propelling entrepreneurship students with entrepreneurial propensity.

**Table 4.19: Results on Ability to Write a Business plan**

Ability to Write a Business Plan	Frequency(n)	Valid Percent (%)
Yes	133	86.4
No	21	13.6
<b>Total</b>	<b>154</b>	<b>100</b>

Rate of business plan writing ability was measured using the Likert scale and the results, expressed as percentages as tabulated in Table 4.20. On whether the respondents benefited from writing a business plan, majority (88%) admitted they benefited, while a few, (9%) expressed the fact that they did not benefit from the knowledge of writing a business plan.

Asked if knowing how to write a business ensures business success, majority (94%) admitted it would while a few (2%) said knowing how to write a business plan does not guarantee business success and 4% were neutral. On whether many people still succeed without a business plan, majority (44%) were neutral while few, (25%) agreed that people succeed without a business plan. Asked if they would write a business plan and possibly generate an income from it, majority (81%) admitted they could while few (7%) expressed inability to write a business plan as a way of generating an income and 12% were neutral.

Kuratko (2014) revealed that the important question is not whether entrepreneurship should be taught but 'how' it should be taught. Oyugi (2015) identified two methods of teaching entrepreneurship 'for entrepreneurship' and 'about entrepreneurship'. For entrepreneurship brings the student closer to entrepreneurial experience such as business plan writing and case studies. Planning for a business is important since the plan operates as a road map; it projects where the business will be in the next few years. It foresees the future of the business, the goals and objectives to be attained as well as its future financial position. Castogiovanni, (1996). Knowing how to write a business plan is an important skill vital for entrepreneurship students.

There are many business people who operate businesses without a business plan and this is a gap that entrepreneurship students can seize. With a majority of them (81%) appreciating business plan writing as a way of generating an income reveals that an entrepreneurial propensity among entrepreneurship students has been acquired. Those who operate businesses without a business plan do so out of ignorance, lack of knowledge or even seeing it as time wasting process. Since entrepreneurship students have learnt the importance of a business plan, it will be upon them to practice what they have already learnt.

The entrepreneurship risk bearing theory purports that entrepreneurs earn rewards by taking risk, (Praag, 1999). Writing business plan to those in need of one is operating at a risk that can give entrepreneurship students a reward.

**Table: 4.20: Results on the Assessments to Write Business Plan**

<b>BPWA</b>	<b>SA (%)</b>	<b>A (%)</b>	<b>N (%)</b>	<b>D (%)</b>	<b>SD (%)</b>	<b>M(X)</b>	<b>Std Dev</b>
<b>ENTC 1</b>	54	34	3	5	4	1.71	1.03
<b>ENTC 2</b>	64	30	4	1	1	1.45	0.70
<b>ENTC 3</b>	7	18	44	22	9	3.07	1.02
<b>ENTC 4</b>	48	33	12	4	3	1.82	1.01

This study also endeavoured to recognise whether the University students were really exposed to case studies which they could relate with. Majority (68%) of the respondents said they were well exposed to case studies and few (32%) were not as indicated in Table 4.21. Case studies expose the students to relevant examples that students are able to relate with in their area of specialization (Grassel & schemer, 2006). This is supported by the human capital theory which argues that diversified knowledge is an important resource when it is diversely dispensed across individuals and it forms the bases of understanding diversity (Chandler & Hanks, 1998, Shane & Venkataraman, 2000).

A case study informs the students' ability to apply what they have learnt from each case they study. A response majority (68%) of respondents exposed to case studies is clear indication that the students' ability to apply logic was captured in the entrepreneurship curriculum. Exposing students to sort of see them through and visualize how they would behave in a given scenario and by so doing, an entrepreneurial propensity is inculcated through assimilation.

**Table 4.21: Distribution of Exposure to Case Studies**

Exposure to Case Studies	Frequency (n)	Valid Percent (%)
Yes	103	67.8
No	49	32.2
<b>Total</b>	<b>152</b>	<b>100</b>

Rate of case studies was measured using the Likert scale and the results, expressed as percentages as tabulated in Table 4.22. On whether the case studies that were used in class were relevant, majority (66%) admitted they were while a few (19%) said they were not while 17% remained neutral. Asked if the case study used were cases that they can apply in future, majority (70%) agreed while few (13%) said the cases could not be applicable and 19% of the respondents remained neutral.

On whether the respondents preferred cases that were indigenous, majority (47%) said they would prefer indigenous cases while few (22%) said they wouldn't and 32% of the respondents remained neutral. Asked whether cases studies was important and should be emphasized in the curriculum, majority (89%) said it should, while few (4%) disagreed and 9% of the respondents were neutral. On whether it made any difference between a case that the students could relate with or not, majority (86%) said it would make a difference, few (4%) said it made no difference while 10% of the respondents were neutral as indicated in Table 4.22.

Besides the knowledge and the skills that entrepreneurship students acquire in the learning process, entrepreneurship curriculum is tailored in such a way that the student should be able to be imaginative, and be able to conceptualize and operationalize what they have learnt in class (Drunker, 1994).



Case studies is therefore an important element in entrepreneurship curriculum as it is intended to assist the studies to relate and logically internalize and imagine and comprehensively pick what is relevant to the case in question and personalize it.

With majority (89%) admitting that the cases were cases they could relate with, indicates that the cases were relevant to the students' situations hence could trigger their propensity towards entrepreneurship. However, it's important to note that majority (47%) admitted that the cases were not indigenous hence the need for educators to look at how to generate more local cases that entrepreneurship students can closely relate with.

**Table 4.22: Results of Exposure to Case Studies**

Case Studies	SA (%)	A (%)	N (%)	D (%)	SD (%)	M(X)	Std Dev
ENTC 1	31	35	17	10	9	2.29	1.25
ENTC 2	28	42	18	8	5	2.2	1.08
ENTC 3	21	26	32	15	7	2.61	1.16
ENTC 4	51	38	9	3	0	1.63	0.75
ENTC 5	52	34	10	3	1	1.67	0.86

On whether the students acquired sufficient and entrepreneurial skills, majority (74%) of the respondents agreed while few (26%) admitted that they did not acquire sufficient knowledge and entrepreneurship skills as indicated in Table 4.23. Entrepreneurship education has widely been accepted as a field of study which provide students with knowledge and skills necessary for launching a successful venture (Cho, 2000). It is designed in such a way as to be able to inculcate attitudes, knowledge, skills and values that are required in the world of business.

Entrepreneurship curriculum incorporates knowledge and skills acquisition that would enable the students become entrepreneurs or entrepreneurial thinkers (Olawolu & Kaegon 2012). Ememe (2010) observed in his study that the entrepreneurship education that students acquire enables them to seek success in ventures through individual efforts. Knowledge and skills are important attribute for an entrepreneur. Entrepreneurial knowledge includes knowing when to seize opportunities, how to identify the strength and weakness of an enterprise and even how to remain competitive in the market. Skills are acquired in the learning processes which are vital when it comes to applications. Many students may not have known that their personal skill such as singing is a skill that they can use in business venture.

The Government of Kenya, through the ministry of education has been considering reviewing the curriculum and improving in such a way that it incorporates enhancing skills that students already have and those that can be acquired through learning. By so doing, students will stop expecting to be formally employed upon graduation and will see the importance of self employment. Such an entrepreneurial propensity can be attained though an institutional formal setting to show the seriousness of how unemployment rate of University grandaunts is addressed. With majority (74%) of the respondents revealing that they have acquired necessary knowledge and skills, it is an indication that entrepreneurial propensity can be achieved through learning.

**Table 4.23 Distribution of Acquisition of Entrepreneurship Knowledge and Skills**

<b>Entrepreneurship Knowledge and Skills</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	113	74.3
No	39	25.7
<b>Total</b>	<b>152</b>	<b>100</b>

The concept of the acquisition of knowledge and skills among University students was measured using the Likert scale and the results, expressed as percentages as tabulated in Table 4.24. On whether the respondents had acquired enough knowledge and skills to enable them start a business upon graduation, majority (83%) agreed while few (6%) disagreed while 6% of the respondents remained neutral. Asked whether the curriculum should incorporate more of role play than the traditional lecturing method, majority (91%) said it should, while few (1%) said it should not and 8% of the respondents were neutral.

The respondents were asked if they would advice that an entrepreneurship student come up with a new business idea or a new product before graduating, majority (78%) admitted that they should, while few (6%) said they should not and 17% of the respondents remained neutral. The respondents were asked if they thought experiential teaching was important where majority (93%) said it was important, and few (1%) admitted it was not important and 7% of the respondents remained neutral.

The respondents were asked if they would support a centre in their institution for entrepreneurship practical where majority (96%) said they would support, and few (2%) said they would not support while 2% of the respondents remained neutral. Asked whether they thought those without University degree had better knowledge and skills about entrepreneurship, majority (65%) disagreed while a few (10%) agreed and 23% of the respondents remained neutral as shown in Table 4.24.

For a long time there has debate whether entrepreneurs are born or they are made. This concept triggers the question on whether entrepreneurship should be taught and if yes then how should it be taught.

Gerba (2012) carried out a study on engineering students who had undertaken an entrepreneurship course in Ethiopian University found that students who had undertaken entrepreneurship education had an entrepreneurial propensity than those who had not. It can therefore be argued that a well covered entrepreneurship curriculum will play a role in inculcating an entrepreneurial propensity among students.

Going by the findings in this study, education contributes in propelling students towards entrepreneurship; however the way it is done ought to be improved. With a majority (96%) supporting a centre for entrepreneurship practical means the institutions might consider investing in incubation centres where business ideas can be natured and launched in the market.

**Table 4.24: Results on Extent of Knowledge and Skills Acquisition**

KS	SA (%)	A (%)	N (%)	D (%)	SD (%)	M (X)	Std Dev
ENTC 6	47	36	10	5	1	1.78	0.92
ENTC 7	46	45	8	1	0	1.65	0.68
ENTC 8	71	25	3	1	0	1.34	0.58
ENTC 9	44	34	17	6	0	1.85	0.91
ENTC 10	60	33	7	0	1	1.49	0.68
ENTC 11	75	21	2	2	0	1.31	0.61
ENTC 12	5	5	23	33	35	3.88	1.09

The study also endeavoured to find out the respondents opinion on the frequency within which entrepreneurship curriculum should be reviewed. Majority (71%) of the respondents felt that entrepreneurship curriculum should be reviewed after every 2 years, while few (24%) indicated a review of entrepreneurship curriculum after every four years as revealed in Table 4.25.

The main objective of University curriculum is to produce citizens who are equipped with relevant and quality knowledge with national values and social competence (Kenya Constitution 2010) and equip them with the 21st century skills and competencies (RoK 2030). When this is not achieved, the curriculum developers together with the Ministry of education would propose a review of the curriculum.

Entrepreneurship curriculum that is tailored towards students becoming job creator as opposed to job seeker, one that facilitates an inculcation of an entrepreneurial propensity is adequate for entrepreneurship development. With majority (71%) suggesting the view of the curriculum after two years is an indication that two years can be sufficient for a student to evaluate himself or herself and ascertain that a propensity towards entrepreneurship has been attained within that period of time and if not, the curriculum can be reviewed and the necessary changes be incorporated.

The Government of Kenya, in conjunction with the ministry of education every so often considers the review of the curriculum to ensure that they are working towards attaining the laid down goals and objectives of entrepreneurship education.

**Table 4.25: Results on Review of Entrepreneurship Curriculum**

<b>Entrepreneurship Curriculum Review</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
After 2 years	102	71.3
After 4 years	34	23.8
After 6 years	7	4.9
<b>Total</b>	<b>143</b>	<b>100</b>

Asked if creativity should be emphasized in entrepreneurship curriculum, majority (98%) felt it should while few (1.6%) felt that it should not. Schumpeter (1934) describes innovation as use of invention to create other newer products or services. According to Schumpeter (1993), creativity can only be enabled by the existence of innovation and hence the importance of considering creativity as an element in entrepreneurship curriculum. New products or services that are created out of existing innovations translate to new wealth, which finally enables economic growth. Innovations enable to be more creative as they address market demands. The ability to be creative where existing markets are destroyed and new ones are created. Even the new created products or services are later destroyed by other newer products and services Schumpeter (1934) refers to this process as 'Creative destruction'. Entrepreneurs who are creative participate in this creative destruction and come up with new products.

With an enabling environment for creativity, students can participate in creativity by students and the same can happen to Kenyan students. The more creative a student becomes, the higher the chances of an entrepreneurial propensity is inculcated in the individual. Creativity is supported by the experiential theory which supports learning through repetition, practising and also by doing (Bazerman, 2001). With a majority (98%) of the respondents admitting that creativity be emphasized in the curriculum is a reflection of readiness to be creative hence ability to enable an entrepreneurial propensity through creativity and innovation.

**Table 4.26: Results on Creativity and Innovation**

<b>Creativity and Innovation</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	127	98.4
No	2	1.6
<b>Total</b>	<b>129</b>	<b>100</b>

#### **4.6 Descriptive Analysis of Entrepreneurial Ecosystem**

The fourth objective of the study was to establish how entrepreneurial ecosystem contributes in inculcating entrepreneurial propensity among entrepreneurship students. This study operated from the assumption that students do not operate in isolation but are part of the system and can therefore influence their decision toward entrepreneurship. Asked whether they learnt from their surrounding, majority (92 %) of the respondent agreed to have learnt some entrepreneurial aspects from the surrounding environment while a few (7.9%) admitted that had little to learn from the surrounding environment as represented in Table 4.27.

Bruyat & Julien (2001) suggests that studying entrepreneurship in isolation of the existing ecosystems is not appropriate. The reason is that entrepreneurship does not exist alone from an entrepreneur's perspective, Brutay & Julien, (2001). Entrepreneurship is about change and learning that an individual experiences by interacting with the environment as the change and the value that is created by entrepreneurs is from their interactions with the environment. For an entrepreneurial propensity to be inculcated, an enabling ecosystem is important. Students learn through observation. Kenyan Universities liberalized accommodation of the students. This opened business opportunities for the communities surrounding the Universities. Small businesses that operate around the universities such as transport, hotels and hostels for accommodations are some of the common businesses that University students observe daily and, those with an entrepreneurial propensity are able to observe and learn how businesses are operate and how opportunities are seized. Prior the coming up of Universities within certain parts of Kenya, the areas were dormant and now what is observed is vibrate businesses that are functional hence enabling the students to learn from them and consequently causing a trigger in their entrepreneurial propensity.

**Table 4.27: Respondents on Surrounding Business**

<b>Surrounding Business</b>	<b>Frequency(n)</b>	<b>Valid Percent (%)</b>
Yes	140	92.1
No	12	7.9
<b>Total</b>	<b>152</b>	<b>100</b>

This study also endeavored to establish the role that policies play in inculcating entrepreneurial propensity among the entrepreneurship students. Policies in this study were considered as one of the environmental ecosystem that can influence an entrepreneurial propensity either positively or negatively. The results revealed a majority (82 %) of the respondents who agreed that the Government policies in Kenya support entrepreneurship growth and few (17%) who admitted that the Government policies do not support entrepreneurship growth as is indicated in Table 4.28.

The policies that support entrepreneurship are intertwined with the policies that support small and micro enterprises in Kenya. Very little exist in terms of policies that support entrepreneurship in Kenya stand alone. The micro and small enterprises Act 2012 created a structural framework for the promotion of small enterprises. It included the registration of MSEs through the registrars of MSEs, formulation and review of policy programs for MSEs and SMES, MSE fund and provision of accessing affordable credit and MSE tribunal on settling disputes to specific MSEs, categorization of MSMEs into farms, manufacturing and industry, services and trade (Gok, 2015). As a results many Kenyan, including students are unable to differentiate entrepreneurship from small businesses.



Nevertheless, as revealed by majority (82%) in the study, the Government has facilitated entrepreneurship growth for instance through improved infrastructures, offering security, availing funds at a reduced interest rate as well as the introduction of entrepreneurship education in the higher institution of learning. It is due to such initiatives that entrepreneurship students feel inclusivity in the Government policies and hence the majority (82%) are in support of the role the Government is doing to support entrepreneurship through supportive policies.

Unlike in the past when business registration was centralized, today, now business registration and Company formation have been decentralized to the Counties in the huduma centres. This proactive initiative by the Government has played a role in enabling entrepreneurship students view businesses as easy to start and hence propelling an entrepreneurial propensity in them unlike when in the past, starting a business was viewed as very challenging and not accommodative for young people who have graduated from the universities. It can therefore be argued that the Government has played a positive role in inculcating an entrepreneurial propensity among University students.

**Table 4.28: Respond Distribution on Government Policies**

<b>Government Policies</b>	<b>Frequency(n)</b>	<b>Valid Percent (%)</b>
Yes	125	82.2
No	27	17.8
<b>Total</b>	<b>152</b>	<b>100</b>

Another ecosystem that was considered in this study was the community around the institution. This study endeavoured to establish whether the community was made of entrepreneurs or business men and women. Asked whether the community was made up of entrepreneurs or business people, majority (64 %) of the respondents agreed that the communities around their universities were business persons and not entrepreneurs while few (16.3%) were of the opinion that they were entrepreneurs as shown in Table 4.29.

Borrowing from Silicon Valley, its economic success has been attributed to its regulatory open-non hierarchical regional network- based individual system. It gave rise to a huge global industry which many countries have tried to replicate (Hospers, 2008). The community around an institutions should survive in such a way that they can radically transform due to the presence of the huge population of students hence enabling the students learn from them as they offer opportunities either for formal employment or informal employment upon graduation.

Institution of higher learning operates like any other open system with inlets and outlets hence cannot be separated from the communities where they are situated. The majority (64%) of the respondent indicated that the communities around their universities were mere business person, meaning they bought and sold products or services without being creative or innovative in their business operations. For entrepreneurship students to benefit from the community around theory institutions, the community has to operate in such a way that its radical and transformational. It ought to be one that seizes opportunity and is able to address the needs of the people around by creative and innovative. Consequently, as supported by entrepreneurial passion theory, an entrepreneurial perception would be created, entrepreneurial passion stimulated and an entrepreneurial propensity inculcated and is synchronized and sustained overtime (Damasio, 2001).

**Table 4.29: Distribution Response on Communities around**

<b>Communities Around Universities</b>	<b>Frequency(n)</b>	<b>Valid Percent (%)</b>
Yes	128	63.7
No	25	16.3
<b>Total</b>	<b>153</b>	<b>100</b>

Government policies were measured using the Likert scale and the results expressed percentages as tabulated in Table 4.30. On whether the Government has Policies that are in support of entrepreneurship, majority (79%) agreed while few (7%) disagreed and (15%) were neutral. The respondents were asked their opinion on whether entrepreneurship policies need to be reviewed, majority (90%) said the policies should be reviewed while a few (1%) said they should not be reviewed and (9%) of the respondents were neutral. On whether the existing policies emphasized more on small businesses and not on entrepreneurship, majority (63%) said they did while few (10%) admitted the policies did not emphasize more on small business than entrepreneurship and (27%) of the respondents were neutral. The respondents were asked whether lack of favourable policies can be attributed to not engaging in entrepreneurship where majority (63%) admitted that lack of policies can cause lack of entrepreneurial engagement , while a few (11%) said it could not cause and (25%) of the respondents were neutral as indicated in Table 4.30.

Embracing entrepreneurship in the Government can be a route toward economic growth and poverty reduction. The Government of Malaysia for instance has incorporated entrepreneurship skills in its economic plans as a poverty reduction strategy. It has development entrepreneurship programmes that are a means of combating poverty (New Economic agenda, 2010). Having policies that are good in paper and that are not implemented is like having no policies at all. It has always been argued that Kenya has good policies the problem but poor implementation strategies. With majority (90%) admitting that policies play a role in entrepreneurship propensity, and majority (90%) advocating for entrepreneurship policy review means something need to be done regarding the laid down entrepreneurship policies. By the time the students are in fourth year of study, they can properly understand what is happening in the ecosystem.

Government policies being one of the ecosystems that this study considered can be a hindrance to propelling students to entrepreneurship hence failing to inculcate an entrepreneurial propensity among the students.

**Table 4.30: Results on the Assessment of Government Policies**

Government Policies	SA (%)	A(%)	N (%)	D (%)	S D(%)	M(X)	Std Dev
ENTD 1	32	47	15	7	0	1.96	0.85
ENTD 2	42	48	9	1	0	1.7	0.69
ENTD 3	23	40	27	10	0	2.25	0.94
ENTD 4	27	36	25	10	1	2.23	1.00
ENTD 5	27	43	23	6	1	2.12	0.91

#### 4.7 Descriptive Analysis of Environmental Dynamism

The constructs that were used to operationalize environmental dynamism were technology, market change and globalization. Asked whether technology facilitates the growth of entrepreneurship, majority (99%) of the respondents agreed while few (0.7%) admitted there was no relationship between technology and the growth of entrepreneurship as indicated in Table 4.31.

Milliken (1987) considered environmental dynamisms as speed of product changes, the frequency change in Customers preferences as well as an operational environment hence admitting that rapid change in technology affects business performance which translates to entrepreneurship development Milliken (1987). Ensley, Pearce & Hmieleski (2006) used a moderating variable in their study on the effect of environmental dynamisms on the relationship between entrepreneurship leadership behaviour and new change.

Nuami, Idris, Ferokh & Joma (2014) used environmental dynamisms as a moderating variable in their study on the effect of entrepreneurial orientation on the relationship between Environmental turbulence and innovation performance in five star hotels in Jordan. Environmental dynamism was also used as a moderating variable by Alon, Jioa & Cui (2010) in their study on environmental dynamisms, innovation and dynamic capabilities: A case of China. Jiao, (2010) also used environmental dynamisms when he studied the effect of environmental dynamisms on the relationship between dynamic capabilities strategies and new venture performance in emerging markets. In this study, environmental dynamism was used as a moderating variable and was measured using technology, market change and globalization.

When entrepreneurship student enter the competitive market place upon graduation, the assumption is that they will launch new ventures whose growth will depend on the fast response capabilities that would enable them cope and align themselves with the changes in the external environments hence enabling the new business to prosper and survive in a technological and dynamic environment.

With majority (99%) indicating the importance of technology in entrepreneurship growth, it means entrepreneurship students need to stay afloat with the changing technology, they should be both proactive in technology adoption if they are to keep abreast with the dynamisms of technological environment for them to remain relevant in a competitive market. Today technology is the web that interconnects the globe. Universities are investing in technology to ensure that students can access as most information as possible hence the reason why entrepreneurship students should not be lagging behind if their entrepreneurial propensity is to be realised and sustained in the world outside the University.

**Table 4.31: Response on Technology and Entrepreneurship growth**

TEG	Frequency(n)	Valid Percent(%)
Yes	152	99.3
No	1	0.7
<b>Total</b>	<b>153</b>	<b>100</b>

Technology factor was measured using a likert scale and results stipulated in Table 4.32. On whether technological innovation is important in ensuring economic growth, majority (99 %) agreed that it does few (1%) disagreed and 1% of the respondents were neutral. Asked if majority of the youth are using technology in business transactions, a majority (89%) of the respondents agreed that they did, while few (4%) disagreed and (7%) of the respondents remained neutral. On whether they could have known the importance of adapting to technology even without a University degree, majority (62%) agreed while few (22%) disagreed that they could have and 16 % were neutral as indicated in Table 4.32.

Shane, (2016) acknowledged the important role that technology plays in business operations. The educated young elites in Kenya have embraced the use of technology and are good in adopting and keeping abreast with the changing technology. This can be used to explain why majority (89%) are of the opinion that the technology adoption is vital to ensure entrepreneurship success.

**Table 4.32: Results on Technology and Economic Development**

Role of Technology	SA(%)	A (%)	N(%)	D (%)	S D (%)	M(X)	Std De
ENVD1	71	28	1	1	0	1.32	0.53
ENVD 2	48	41	7	3	1	1.68	0.80
ENVD 3	58	37	5	1	0	1.49	0.63
ENVD 4	12	20	33	29	5	2.96	1.09
ENVD 5	26	36	16	16	6	2.41	1.21

On whether market changes hinder entrepreneurship growth, majority (68%) of the respondents said it did while few (31.8%) indicated that it did not as is indicated in Table 4.33. Market change is an environmental dynamism and explains the rate at which changes take place in the external market environment which is in most cases unpredictable (Dess & Beard, 1984).

As entrepreneurship students prepare to create new ventures, it is important to be adequately prepared to face the unfair competition, changes in customers taste and preference, scarcity and lack of customers which they may not have predicted when they were launching the venture. However, if this changes find them well prepared they ignite entrepreneurship growth in the environment hence sustain their entrepreneurial propensity.

This happens because when those changes occur, entrepreneurs are forced to be more creative, they improve the quality of their products, they search for new markets, new sources of raw materials and this is what explains why majority (68%) of the respondents' acknowledge the relationship between market changes and entrepreneurship growth. This is because the market stirs the waters of competition hence creating availability of diversified goods and services in the market place.

**Table 4.33: Distribution on Market Changes**

<b>Market Change</b>	<b>Frequency (n)</b>	<b>Valid Percent (%)</b>
Yes	105	68.2
No	49	31.8
<b>Total</b>	<b>154</b>	<b>100</b>

The change in the market was measured using a likert scale and results stipulated in Table 4.34. Where majority (85%) of the respondents agreed to the fact an entrepreneur should be ready for market dynamisms, while a few (4%) disagreed and 12 % of the respondents remained neutral. On whether an entrepreneur can still be successful despite the changes in the market, majority (81%) of the respondents agreed that an entrepreneur can still succeed, while a few (11%) disagreed and 9 % of the respondents were neutral.

When asked if there is a relationship between market changes and entrepreneurship development, majority (92%) of the respondents agreed, while a few (5%) indicated that they did not see any relationship between entrepreneurial propensity and market changes. Asked whether an entrepreneur ought to be proactive in order to meet market demand, majority (97%) admitted it is important while few (3%) disagreed as indicated in Table 4.34. Mitton (1989) purports that entrepreneurs should be prepared at all times and should be ready to act on unknown circumstances.

Whenever an economy is experiencing rapid market changes, the Country may go through inflation period. It's at that time that many people lose their jobs. It is this period of contracting or stagnation that dynamic entrepreneurs turn the economy around. Entrepreneurs develop novel products which increase competition, new firms boost the demand and in turn new jobs are created and this in turn reduces the unemployment rate being experience in the Country. This explains how change in markets influences entrepreneurship propensity. This is because opportunity comes to the prepared and hence to sustain an entrepreneurial propensity demands high rate of preparedness and alertness among the University entrepreneurship students.



**Table 4.34: Results on Market Change and Entrepreneurship Propensity**

Market Change	SA (%)	A (%)	N(%)	D (%)	SD (%)	M (X)	Std Dev
ENTD 6	37	48	12	3	1	1.82	0.79
ENTD 7	35	46	9	10	1	1.96	0.95
ENTD 8	61	36	3	0	0	1.41	0.54
ENVD 9	51	41	5	3	0	1.59	0.71
ENVD 10	63	34	3	0	0	1.41	0.56

Globalization factor was measured using a likert scale and results stipulated in Table 4.35. When the respondents were asked if the global trends and globalization affect the rate of internationalization among the Kenyan entrepreneurs, majority (81%) agreed while a few (16%) disagreed and 16 % of the respondents were neutral. On whether global entrepreneurship monitor helps in making decisions on internationalization, majority (76%) admitted it did while few (3%) said it did not and 21% of the respondents were neutral. On whether the respondents were ready to do in the international market, majority (82%) admitted they were, a few (2 %) said they were not while 15% of the respondents remained neutral. When the respondents were asked to point their opinion about the local market compared to international market, majority (40%) preferred a local market, while a few (31%) preferred the international market as indicated in Table 4.35.

Globalization basically constitutes the recent revolution of technology which has led to 'Knowledge Society' which has had its impact on the economic and social functions. Globalization has generalized uncertainty among individual and even at entrepreneurship level. Market liberalization has lead to competition, tension which has deepened the world uncertainty independence. In a global competitive market, entrepreneurs have to be willing to take up the struggle and fit in the international success (Pediaditakis Minas, 2006).

Technology has made the world a global village and this support why respondents indicated confidence in participating in the global market. The support of a local market by the majority (40%) and the support of a global market by the majority (82%) is an indication that to participate in an international business one does not need to travel abroad.

Entrepreneurship student should be encouraged to embrace local business as that is the only way to grow the economy. On the other hand, appreciating the international market is an indication that the students have understood the world has been narrowed by the available technology and this has propelled a entrepreneurial propensity among entrepreneurship students in Kenya.

**Table 4.35: Results on Globalization and Entrepreneurship propensity**

Globalization	S A (%)	A(%)	N (%)	D (%)	S D (%)	M (X)	Std Dev
ENVD 11		50	16	3	0	1.91	0.76
ENVD 12	24	52	21	3	0	2.02	0.75
ENVD 13	47	35	15	1	1	1.74	0.86
ENVD 14	41	34	22	3	0	1.88	0.86
ENVD 15	6	25	31	27	13	3.15	1.11

#### 4.8 Descriptive Analysis of Entrepreneurial Propensity

Entrepreneurial propensity was operationalized into self-efficacy, desirability and feasibility. Self efficacy was measured using a likert scale and so was desirability and feasibility. The respondents were asked whether they had a strong motivation to become entrepreneurs after graduation where majority (89%) said they were strongly motivated, few (4%) were not strongly motivated while 9% of the respondents remained neutral.

On whether their attitude toward business had changed over the four years of study, majority (85%) said their attitude had changed, a few (4%) admitted that their attitude had not changed while 12% of the respondents remained neutral. On whether entrepreneurship education will help them in doing business better, majority (88%) agreed that it will while a few (3%) admitted it would not and 9% of the respondents remained neutral. On whether they think they would still have become entrepreneurs even without a degree in entrepreneurship, majority (39%) said they would have while a few (25%) said they would not have become while 36% of the respondents remained neutral.

Asked whether they had a positive perception about business before joining the University, majority (50%) said they had, few (28%) admitted they did not have while 22% of the respondents remained neutral. The respondents were asked if they would recommend entrepreneurship education to anyone wishing to engage in entrepreneurship and a majority (85%) admitted they would while a few (5%) said they would not and 10% of the respondents remained neutral as shown in Table 4.36.

Shane (2003, p 267) found in his study that an entrepreneur with high self efficacy is likely to exert their effort for a long time, are able to persist through set-backs, have the ability to develop adorable plans and strategies for the task they intend to undertake. Self-efficacy has also been attributed to entrepreneurial an outcome which includes intention to start a business (Krueger 2000), to grow a venture that is already existing as well as the success of the entrepreneur (Markman 2002).

This study found that entrepreneurship students have a motivation to start their own ventures and that having gone through the education system has increased their inclination toward entrepreneurship as reflected by the majority (85%) whose attitude about operating a business has been changed along their cause of study. Also the fact that majority (85%) admitted they would recommend entrepreneurship education to those intending to start a business is an indication that the entrepreneurship students have gained from the education they have acquired and that their propensity towards entrepreneurship has increased over time.

**Table 4.36: Results on Self-Efficacy**

Self-Efficacy	SA (%)	A (%)	N(%)	D (%)	S D (%)	M (X)	Std Dev
ENTREP1.	61	28	9	2	1	1.54	0.80
ENTREP2.	52	33	12	2	1	1.68	0.86
ENTREP3	56	32	9	3	0	1.58	0.77
ENTREP4	18	21	36	19	6	2.75	1.14
ENTREP5	20	30	22	22	6	2.63	1.21
ENTREP6	43	42	10	4	1	1.77	0.85
ENTREP7	63	32	5	0	0	1.42	0.58

The desirability factor was measured using a likert scale and explained in percentages as tabulated in Table 4.37. Asked if the respondents thought entrepreneurship education played any role in increasing ones desire towards entrepreneurship, majority (95%) said it did while a few (5%) admitted that education played no role in increasing desirability towards entrepreneurship. On whether those with strong desire become entrepreneurs even without going through formal education, majority (54%) agreed while few (21%) disagreed and 21% of the respondents remained neutral. Asked whether one needed education to become a successful entrepreneur, majority (47%) said no while few (30%) admitted that education is necessary to ensure entrepreneurship success while 24% of the respondents remained neutral.

On whether there is any relationship between entrepreneurship education and desirability to engage in entrepreneurial activities, majority (73%) admitted that a relationship existed while a few (8%) said there was no relationship and 8% of the respondents were neutral as indicated in Table 4.37.

Shapero (1983) considers desirability as to how much an individual is disposed to make a decision. Fitzsimmons & Douglas (2011) found that there is a relationship between desirability and propensity. Desirability can also be influenced by social norms and cultural factors within the environment.

The findings in this study indicate that entrepreneurship students have seen value in the role that education plays in inculcating propensity toward entrepreneurship. Although majority (54%) expressed the opinion that individuals who desire to become entrepreneurs eventually become regardless of their education level, still a majority (91%) admitted that the desire has increased now more than before they entered the University and took an entrepreneurship course. This study found that there is a relationship between entrepreneurship education and desirability which helps to inculcate an entrepreneurial intention among the students.

**Table 4.37: Results on Desirability and Entrepreneurial Propensity**

<b>Desirability</b>	<b>SA (%)</b>	<b>A (%)</b>	<b>N (%)</b>	<b>D (%)</b>	<b>S D (%)</b>	<b>M (X)</b>	<b>Std Dev</b>
<b>ENTREP 8</b>	55	36	7	2	0	1.56	0.72
<b>ENTREP 9</b>	25	29	27	14	7	2.5	1.19
<b>ENTREP 10</b>	13	17	24	31	16	3.2	1.26
<b>ENTREP 11</b>	30	43	19	5	3	2.09	0.99

The feasibility factor was measured using a likert scale and results stipulated in Table 4.38. Asked if entrepreneurship education has opened their eyes and that they can now identify the most feasible business ideas in the market, majority (93%) agreed while a few (1%) disagreed and 6% of the respondents were neutral.

On whether many businesses fail because of failure to identify which business are more feasible, majority (91%) said yes while a few (1%) admitted that was not the cause and 7% of the respondents remained neutral. When the respondents were asked if they can tell an idea that is feasible and one that is not, majority (88%) said they were able while few (4%) said they could not tell a feasible idea from one that was not feasible and 9% of the respondents remained neutral.

On whether fear of failure can affect even the most feasible business idea, majority (90%) admitted it can, few (7%) said it cannot while 22% of the respondents remained neutral. When the respondents were asked if they will look for formal employment especially because they cannot tell which business to engage in, majority (54%) said they will not look for employment while few (22%) admitted they will as they cannot tell which business to engage in and 25% of the respondents remained neutral as shown in Table 4.38.

Feasibility is influenced by personal capacities, personal skills and personal confidence in their ability to perform an entrepreneurial task in a given environment within some stipulated regulation (Gasee % Tremblay, 2011). (Dronorsek & Erikson, 2005), argued that a person's control depends on how much opportunities and resources are available.

This study recognizes the role that entrepreneurship plays in enabling the students identify which business ideas are feasible and which ones are not with a majority (91%) admitting that they can look around and tell which idea is feasible and which one is not. The study also found that fear of failure can also contribute to the failure of an enterprise whose idea was feasible with a majority (72%) admitting fear of failure as the cause of failure to a business that was feasible.

However, education, according to this study entrepreneurship education acted as an eye opener in enabling students propensity toward entrepreneurship compared to formal employment with a majority (93%) admitting that they would rather be self-employed than look for formal employment meaning entrepreneurship education has been able to propel them towards entrepreneurship.

**Table 4.38: Results on Feasibility and Entrepreneurship propensity**

Feasibility	SA (%)	A (%)	N(%)	D (%)	S D (%)	M (X)	Std Dev
ENTREP 12	64	29	6	1	0	1.45	0.67
ENTREP 13	51	40	7	1	0	1.59	0.69
ENTREP 14	50	38	9	3	1	1.67	0.82
ENTREP 15	31	41	22	4	3	2.07	0.96
ENTREP 16	10	12	25	30	23	3.45	1.24

#### 4.9 Data Analysis and the Results of the study Variables

In this study, data was analyzed using two phase process consisting of confirmatory measurement model and confirmatory structural model. This method is in accordance to the two phase process that has been suggested by Anderson and Gerbing (1988) before the confirmatory test was conducted, a normality test was carried out to examine if the data used was normally distributed.

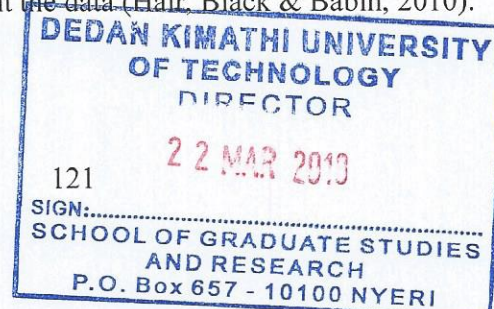
The normality of data distribution was assessed by examining its skewness and kurtosis (Kline, 2005). When a variable has a skew index value that is greater than 3.0, it means it is extremely skewed while a kurtosis index that is greater than 8.0 implies an extreme kurtosis (Kline, 2005). An index which is smaller than an absolute value of 2.0 for skewness and an absolute value for kurtosis is considered to be the one with least violation of the normality assumption (Cunningham (2008). In this study, the data for all the variables were fairly normally distributed because the skewness and the kurtosis had values that fall between -2 and + 2. The normality testing Table is found in appendix III.

#### 4.9.1 Confirmatory Factor Analysis

The first phase was the confirmatory factor analysis (CFA) which evaluates the measurement model on multiple criteria such as the internal reliability, convergent as well as discriminate validity. Prior to this, exploratory factor analysis (EFA) this includes the computation of factor loading and communalities (Hair, 2011). EFA is a statistical method used to uncover the underlying structure of a relatively large set of variables. Dahira, Pihie, Basri & Hassan (2017) used confirmatory factor analysis in their on entrepreneurial leadership.

#### 4.9.2 Exploratory Factor Analysis

Exploratory factor analysis (EFA) is normally used when one has a large set of variables and is unable to describe in clear and simple terms which variable will cluster together and eliminate others. (Tabachnick % Fidell, 2013). This means that EFA has to be used at the earlier stage of the research in order to identify those variables that can be clustered together (Bordens %Abbot, 2014) and as a result, this will advice the researcher the number of factors that can best represent the data (Hair, Black & Babin, 2010).





The purpose of EFA is to identify factors based on the data in order to minimize variance (Suhr, 2006). In this case, the researcher is not expected to hypothesize how many factors will emerge or even what variables will comprise the factors. On the other hand still, the EFA does not impose any preconceived structural outcome. Hafiz & Shaari (2013) in their study on confirmatory factor analysis (CFA) of the first order measurement model in order to identify those variables could cluster together in their study.

Two statistical tests which assess the factorability of data or data suitability for structure detection were performed first before EFA. These tests are Kaiser –Meyer-Olkin (KMO) which measures the sampling adequacy and Bartlett's test of Sphericity. Hassan & Norashidah (2015) used Kaiser-Meyer-Olkin (KMO) in their study on the impact of entrepreneurial education on entrepreneurial intentions of Pakistan Students. Kaiser-Meyer-Olkin (KMO) is used to measure what might be caused by any underlying factor. Dabale & Masese (2014) used exploratory factor analysis (EFA) on their study on the influence of entrepreneurship education on beliefs, attitudes and intention: A study of African University graduates. In this test, high values that are close to (1.0) indicate that a factor analysis can be useful to the data (Pallant, 2010).

The Bartlett's test of Sphericity tests the hypothesis whose correlation matrix is an identity matrix. It indicates that the variables are unrelated hence suitable for structure detection. A small value of ( $P < 0.05$ ) of the significance level shows that the factor analysis may be useful in that data. This study found that manifest variables had KMO Measures of Sampling Adequacy above the threshold of 0.5 and all p-values in Bartlett's test of Sphericity were also found to be less than the significance level of 0.05 as is stipulated in the appendix IV meaning that the variables were suitable for factor analysis.

Cronbach's alpha was used to test reliability coefficient for each of the constructs. Maresch, Harms & Wurm (2016) used Cronbach alpha to test reliability on their study on the impact of entrepreneurship education on entrepreneurial intention of students in science and engineering versus business studies University program. The average Cronbach's Alpha in this study was greater than 0.7 as shown in appendix VI. DeVellis & Nunnally & Bernstein (1994) recommended a value of 0.7 and above for the coefficient alpha to infer internal consistency of items. The reliability was therefore demonstrated since the overall Cronbach's Alpha statistic was greater than 0.7 meaning that the scale was reliable as shown in the appendix VI.

Confirmatory factor Analysis (CFA) is different from equation modelling in that CFA has no direct arrows between the latent factors (Schumacker & Lomax, 1996). While CFA factors are presumed to directly cause one another, SEM does not specify particular factors and variables to be caused naturally. CFA is also referred to as "the measurement model" while the relations between the latent variables (with arrows) are referred to as "the structural model". Hafit & Shaari (2013) in their study on confirmatory factor analysis (CFA) of the first order measurement used the CFA technique to verify the factor structure of variables observed.

The convergent and the discriminate validity are the sub sets of construct validity (Bahl, & Wali, (2014). They both work together in such a way that if there is evidence for both convergent and discriminate validity then construct validity is there. Neither one can singly be sufficient for construct validity. For convergent validity, the factor loading ought to be 0.5 or higher (Pansuwong, 2009 & Hair 2010). Ideally, the factor loading should be 0.7 and above in order to guarantee that the construct has convergent validity (Kline, 2005 & Hair 2010).

In this study, the average loadings are more than 0.7 (Environmental dynamism is 0.716, Entrepreneurial ecosystem is 0.773, Educators' Network is 0.726, Entrepreneurship curriculum 0.887, Entrepreneurial propensity is 0.777 and entrepreneurship teaching method is 0.795) This means the variables are high enough to be convergent as shown in Table 4.39 for discriminate validity for second order constructs and as shown in appendix V for discriminate validity first order constructs. The loadings are therefore within the acceptable range thus demonstrating construct validity.

**Table 4.39: Results on Discriminate Validity for Second Order Constructs.**

Variables	D	E	N	C	P	TM
<b>Dynamism</b>	0.716					
<b>Ecosystem</b>	0.326	0.773				
<b>Network</b>	0.038	0.466	0.726			
<b>Curriculum</b>	0.189	0.596	0.638	0.887		
<b>Propensity</b>	0.119	0.605	0.652	0.577	0.777	
<b>Teaching Methods</b>	0.066	0.441	0.667	0.713	0.627	0.795

#### 4.10 Confirmatory Structural Model and Hypotheses Testing

##### 4.10.1 Teaching Methods and Entrepreneurial Propensity

The first objective of the study was to determine the relationship between entrepreneurship teaching methods and entrepreneurial propensity among University students.

The hypothesis test therefore was:

*H<sub>01</sub>: There is no relationship between teaching method and entrepreneurial propensity among University students in Kenya*

Before the hypothesis testing, normality tests were done to confirm normality. The results indicated that the models met the normality assumptions. Before drawing conclusion to the objective, a model was fitted which showed the influence of entrepreneurship education on entrepreneurial propensity. The fitted model was then tested for fitness and the effect determined that the test was significant. To test for fitness, the fitness indices, NFI, SRMR and RMS theta were used. A summary of the results to the fitness indices are in Table 4.40. From the Table the NFI values were 0.967 which is  $>0.90$ , SRMR was  $0.058 < 0.08$  hence implying that the model was fit for the study. A model is said to be of good absolute if RMS is below 0.12 and a higher value would indicate lack of fit (Henseler *et al.*, 2014). The incremental fit measures NFI was  $0.967 > 0.90$  shows that the fitted model on the influence of entrepreneurship education was of good incremental fit. Both NFI that is  $> 0.90$  is a good fit while an RMS theta should have values below 0.12 to qualify for a good fit and SRMR of  $<0.058$  (Lohmoller, 1989).

**Table 4.40: Model fits Between Teaching Methods and Entrepreneurial Propensity**

Measure	NFI	SRMR	RMS_theta
Estimate	0.967	0.058	0.057
Threshold	$>0.90$	$<0.08$	$<0.12$
Interpretation	Good fit	Good fit	Good fit

**NFI:  $>0.90$  SRMR $<0.08$  RMS  $<0.12$**

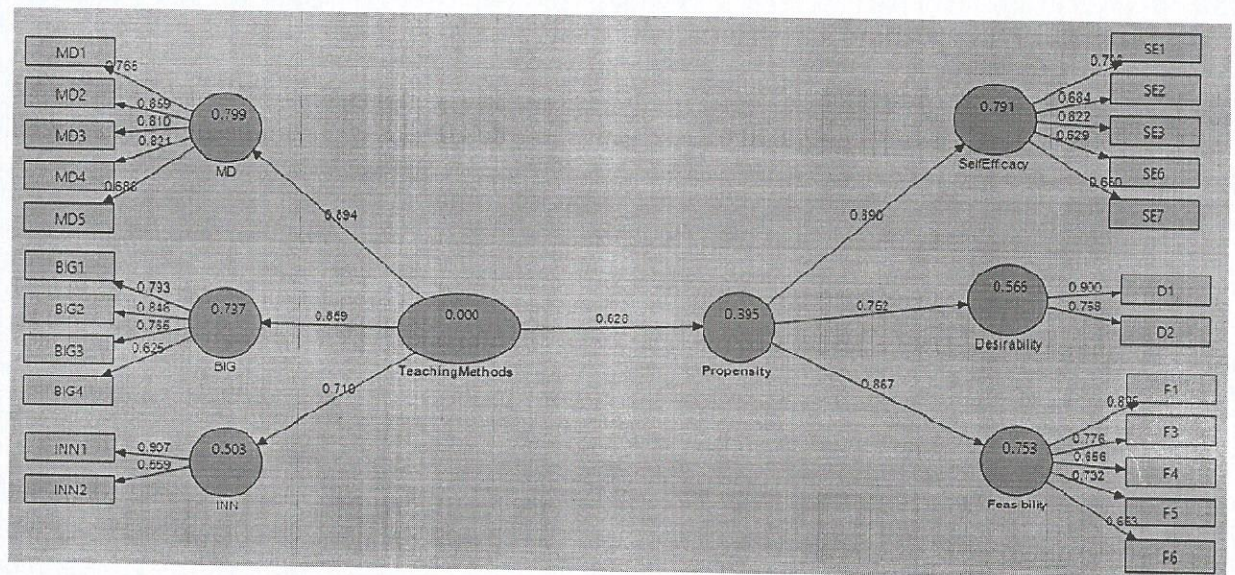
The Structural model fitted showed that the three measures of the observed indicators (Method of delivery, idea generation and innovativeness) load highly the independent variable (Teaching methods). The observed parameters (Desirability, Feasibility and self-efficacy) of the dependent variable were found to load highly on entrepreneurial propensity. Teaching methods was found to have a positive relationship with entrepreneurial propensity with the path coefficient of teaching method and entrepreneurial propensity being 0.628.

The results for the structural model estimates are represented in Table 4.41 and Figure 4.1. All the factors included in the model indicated a positive significant regression weights. This reveals that the variable (Teaching Method) has a significant positive relationship with entrepreneurial propensity as indicated in literature.

**Table 4.41: Regression Weights for Teaching Methods on Entrepreneurial propensity**

Path	Beta	Sample	Standard	T Statistics	P values
		Mean	Error		
Propensity -> Desirability	0.752	0.755	0.040	18.979	0.000
Propensity -> Feasibility	0.868	0.869	0.020	42.619	0.000
Propensity -> Self Efficacy	0.890	0.891	0.024	36.976	0.000
Teaching Methods -> BIG	0.859	0.861	0.021	40.443	0.000
Teaching Methods -> INN	0.710	0.709	0.048	14.718	0.000
Teaching Methods -> MD	0.894	0.894	0.017	52.731	0.000
Teaching Methods -> Propensity	0.628	0.627	0.057	11.125	0.000

**P>0.000**

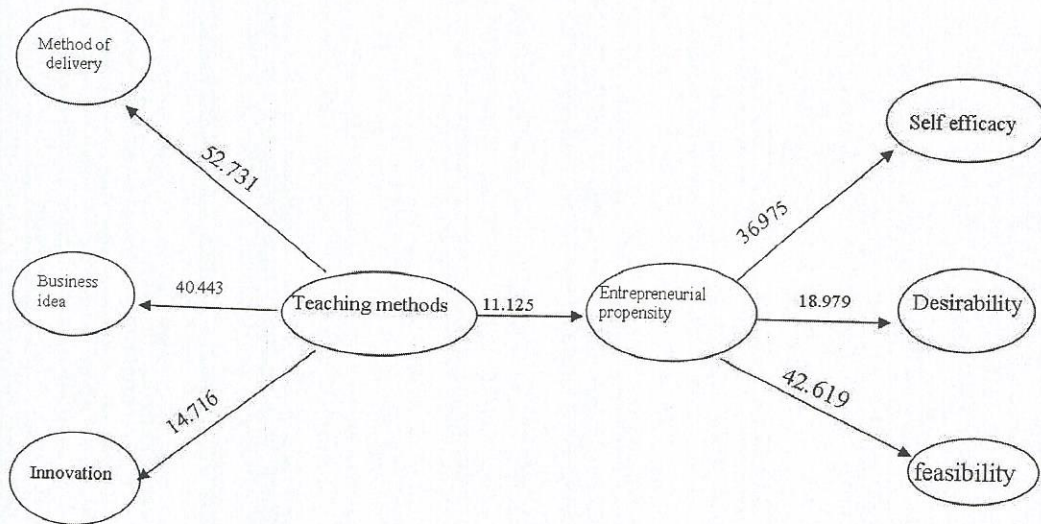


**Figure 4.1: SEM for Hypothesised Testing of Teaching Methods**

This study found that teaching method is statistically significant ( $t=11.125$  and  $p=0.000$ ). From the results in the study, it can be deduced that the proportion of variance in entrepreneurial propensity that is accounted for by teaching methods is substantial.

The question on whether entrepreneurship should be taught and whether entrepreneurs are born has been ongoing. However, there is a general opinion that entrepreneurs can be trained and hence students acquire an entrepreneurial propensity from a classroom setting (Solomon & Frenald, 1991). Rae & Carswell (2001) in their study there is a difference between teachable and non teachable methods applied to teach entrepreneurship. Lee (2007) states that the key elements to successful entrepreneurship education is to find the effective way that can be applied in order to manage the teachable method and match those methods to the students needs. The methods used to teach entrepreneurship has been referred as both an art and a science (Jack & Anderson, 1995).

Although a lot of focus has been put on the scientific method of teaching entrepreneurship, it the artistic method that can help ignite the creative and entrepreneurial propensity toward entrepreneurship students. The method the educator uses has a lot to determine on whether the student will apply that knowledge in real life. In entrepreneurship education, the assumption is that the knowledge acquired will be applied by students after they graduate hence the need to make it as student centred and as practical as possible.



**Figure 4.2: Significance Test Results of Teaching Methods**

**Moderated effect of Entrepreneurship Education on the Relationship between Teaching Methods and Entrepreneurial Propensity among University Students in Kenya**

The moderating effect of environmental dynamism was determined by introducing an interaction variable (Teaching method\* Environmental Dynamism) in the model and testing of the new model and the significance of the parameters in the model. The fitness indices of the moderated model met both the absolute fitness and incremental fitness requirements. The results of the fitness indices for the moderated effect on the relationship between environmental dynamisms and entrepreneurial propensity are represented in Table 4.42. The model fits was assessed using SRMR, NFI and RMS theta as recommended by Hair et al (2010). The values for NFI after moderation was 0.902 against a threshold of >0.902 meaning the model had an incremental effect on the selected data hence the model was fit. The SRMR value was 0.077 against a threshold of <0.08 and RMS theta was 0.041 measured against a threshold of <0.12 respectively meaning the model was fit for the test.

**Table 4.42: Model Fits for the Moderated Model for Teaching Methods**

Measure	NFI	SRMR	RMS_theta
Estimate	0.902	0.077	0.041
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

The model including the moderating variable environmental dynamism and the interaction variable (Teaching Method interaction Environmental Dynamisms) was found to be significant with all factors having significant effect on entrepreneurial propensity. On this moderated influence, the interaction variable was found to be significant implying that environmental dynamism has a significant effect on the relationship between teaching method and entrepreneurial propensity.

The regression weights are represented in Table 4.43. The path coefficient used for moderating (ED) that is  $TM * ED$  was 6.1412 and significant at 0.05 level. This indicates that the moderator (ED) has a positive relationship with teaching method. Figure 4.3 shows the path diagram of the structural equation model. The test of significance was done by assessing the significance of the ratio between 0.05 levels of significance. The moderated interaction term was 1.0073 which is greater than 0.05 hence significant at 0.05 levels of significance. It means therefore that ED moderates the relationship between teaching method and entrepreneurial propensity among University students in Kenya.

The test on whether environmental dynamisms moderates teaching method was performed by introducing the interaction term Teaching\* Dynamism as a predictor alongside teaching methods and environmental dynamism. The two variables (teaching method) and environmental dynamism had positive regression weights of  $t = 6.1412$ ,  $p\text{-value} = 0.000 < 0.05$  meaning the values obtained in the model were within the threshold as shown in Table 4.43.



The interaction term was negative ( $\beta = -0.3654$ ). This means when teaching method is interacted with the moderator it results to negative influence to entrepreneurial propensity. When one unit of teaching methods is increased, and moderated by environmental dynamisms, entrepreneurial propensity among students decreases by 37%. This means the moderator had negative effect on the relationship between teaching methods and entrepreneurial propensity. The interaction term Teaching\* Dynamisms revealed a significant effect of environmental dynamism on the relationship between teaching methods and entrepreneurial propensity hence the study concluded that environmental dynamism negatively moderates the relationship between teaching methods and entrepreneurial propensity.

Milliken (1987) considered environmental dynamism as speed of product changes, the changing frequency of customer preference and operational environment. The coefficient of determination ( $R^2$ ) of TM when interjected with a moderating variable (ED) was 0.109 or 11% change. This means the change caused by TM latent variable (teaching method) after ED has been introduced is only 11%.

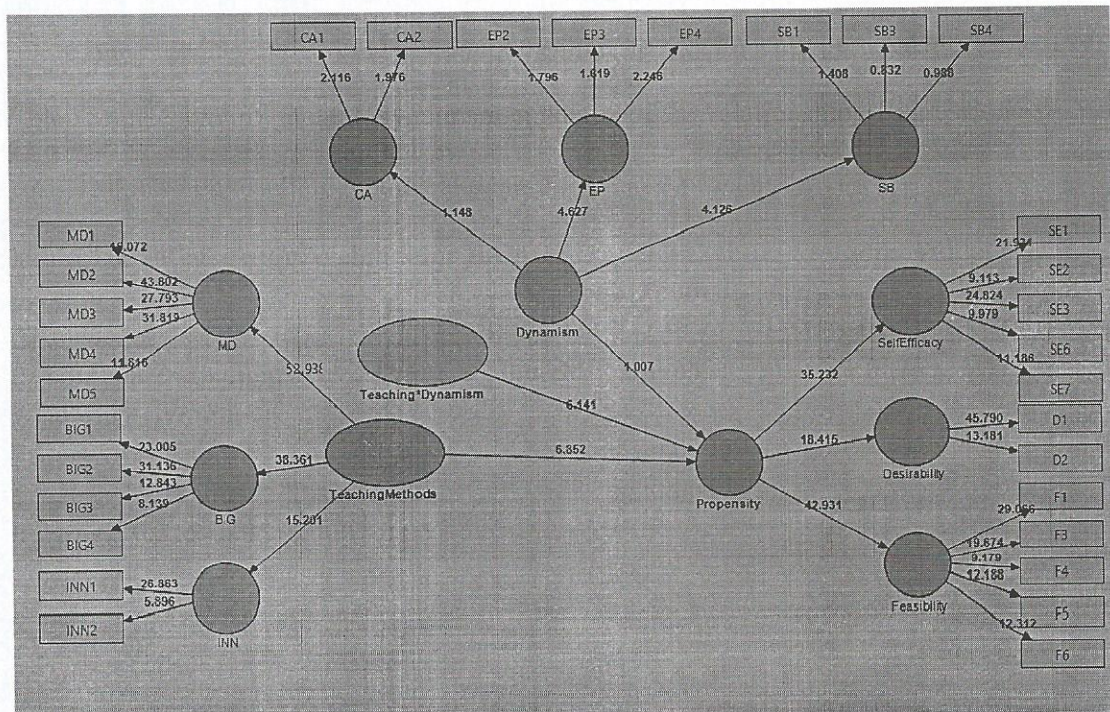
Environmental dynamisms are destructive in nature. They move people from their comfort zone and naturally demand for change. Since human beings are naturally change averse, the respondents could have felt that they could not comfortably embrace the dynamic changes within the environment which actually cause a lot of uncertainties hence the moderator had a negative effect on entrepreneurial propensity. Although not much has been studied on teaching method moderated by environmental dynamisms, this study adds to the body of knowledge on the negative effect caused by a moderator (environmental dynamism).

Teaching method plays a role in inculcating entrepreneurial propensity among the students taking entrepreneurship courses in the Kenyan Universities. Environmental dynamisms however determine how this is achieved. Being proactive to environmental changes and applying modern innovations as well as staying afloat in technology and including more practical teaching methods determines how entrepreneurial propensity will be inculcated among the students and eventually enabling them to opt for entrepreneurship as a career option. Since environmental dynamism moderated the relationship (Regression weight =6.1412) between teaching method and entrepreneurial propensity,  $H_{01}$  was rejected.

**Table 4.43: Regression Weights for the Moderated Teaching Methods Model**

Path	Beta	Standard Error	T Statistics	P values
Dynamism -> Propensity	0.0898	0.0891	1.0073	0.315
Teaching* <b>Dynamism</b> -> Propensity	-0.3654	0.0595	6.1412	0.000
Teaching Methods -> Propensity	0.4482	0.0654	6.8516	0.000

P values: 0.315>0.05, 0.000 >0.05



**Figure 4.3 SEM for the Moderated Teaching Methods Model**

#### 4.10.2 Educators Network and Entrepreneurial Propensity

The second specific objective of this study was to establish the relationship between educators' network and entrepreneurial propensity among entrepreneurship University students in Kenya. The Hypothesis to test for this study was:

*H<sub>02</sub> There is no relationship between educators' network and entrepreneurial propensity among University students in Kenya*

A model was fitted and tested to show the influence of educators' network on entrepreneurial propensity and test the significance of the influence. The fitness indices that are SRMR, NFI and RMS theta were used as shown in the results of the summary in Table 4.44. The SRMR statistic was found to be 0.047 which is within the threshold associated with good fitness of a model. The other absolute fitness index in the structural equation modelling RMS theta was 0.027. This was a good model because a model is said to be of good absolute fitness if it is  $<0.12$ .

The test for incremental it measures NFI was looked at and found to be 0.907. Measures above 0.8 imply a good incremental measure. This implies that the fitted model on the effect of educators' network on entrepreneurial propensity was a good incremental fit since the NFI fitted model was above 0.8 as shown in the Table 4.44.

**Table 4.44: Model Fits for Educator's Network and Entrepreneurial Propensity**

Measure	NFI	SRMR	RMS_theta
Estimate	0.907	0.047	0.027
Threshold	$>0.90$	$<0.08$	$<0.12$
Interpretation	Good fit	Good fit	Good fit

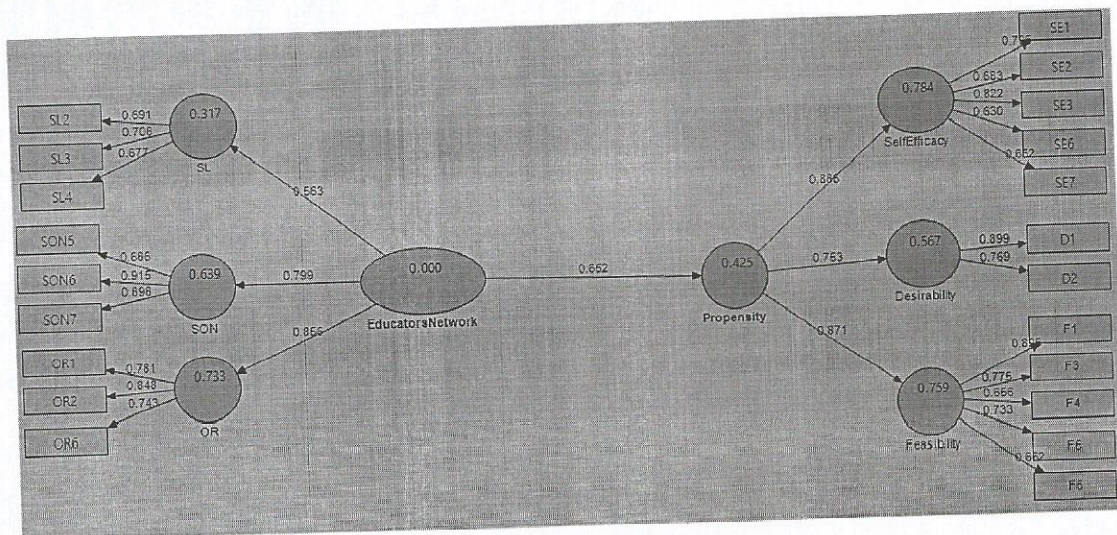


Table 4.45 and Figure 4.4 indicates the results for the structural model estimated to show the relationship between educators' network and entrepreneurial propensity. The structural model indicated that the observed indicators incorporated in the model (Social Links, Students attachment and opportunity recognition) load highly the independent variable (Educators Network) and the dependent variable (Entrepreneurial Propensity). Factors included in the model indicated that a significant regression weights. The path coefficient of educators' network was found to be 0.652 indicating that educator's network has a positive linear relationship with entrepreneurial propensity.

**Table 4.45: Regression weights for educator's network and Propensity**

Path	Beta	Standard Error	T Statistics	P values
Educators Network -> OR	0.856	0.027	31.501	0.000
Educators Network -> Propensity	0.652	0.061	10.638	0.000
Educators Network -> SL	0.563	0.185	3.039	0.003
Educators Network -> SON	0.800	0.034	23.514	0.000
Propensity -> Desirability	0.753	0.040	18.919	0.000
Propensity -> Feasibility	0.871	0.019	46.762	0.000
Propensity -> Self Efficacy	0.886	0.026	33.715	0.000

P Values >0.05

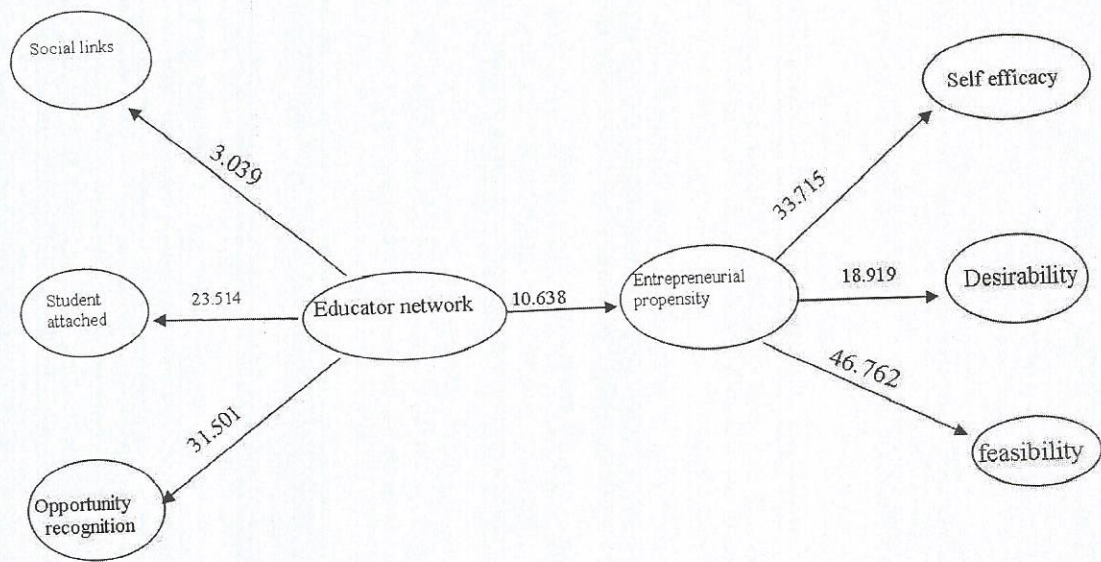


**Figure 4.4: SEM Hypothesised for Educator's Network**

From the study, the path coefficient for the hypothesized path relationship between Entrepreneurial propensity and educator's network is 0.652. This means entrepreneurial propensity can be explained by 65% of educators' network. If educators network is increased by 1 unit, then entrepreneurial propensity increases by 65%% as indicated in Figure 4.5. The study also revealed a statistically significant relationship between educators' network and entrepreneurial propensity.

Educators tend to be isolated in their own institutions and hence confined in a single experience (Gatt, Pereira, Cunha & Costa, 2009). A tight timetable and an overloaded curriculum rarely allow educators to explore (Cachia, 2010). Hofman & Diskstra (2010) studied on educators' development and noted that one of the ways to attain this would be networking. A study that was carried out by US department of education (1999) highlighted that allowing educators to network with other institutions and the world outside the learning institutions set up, will not only improve their profession but their students learning ability as well. The study mentioned that an informal setting would facilitate learning than would a more formal setting.

If educators networking is encouraged, it would set the ground for a more informal learning, hence enable students to freely express themselves without fear and by so doing, an entrepreneurial propensity would eventually be inculcated. A strengthened educators' network would not only improve the educators' professional but it will benefit the students toward inclining to entrepreneurship as a career choice. The inner model suggests. This path coefficient is significant at 10.638 with a p-value = 0.000 as shown in Figure 4.6. From this findings, the null hypothesis ( $H_02$ ) was rejected.



**Figure 4.5: Significance Test Results for Educator's Network**

### **Environmental Dynamisms and Educators' Network Moderation**

The Moderating effect of environmental dynamism on the relationship between educators network is determined by introducing an interaction variable (educators' network interaction environmental dynamism) (EN\* ED) to the model and testing for the fitness of the new model and significance of the parameters in the model.

The fitness indices of the moderated model met both the absolute fitness and the incremental fitness requirement. The results of the fitness indices for the moderated effect on relationship between educators' network and entrepreneurial propensity are presented in Table 4.46. The statistic were 0.057 and 0.055 respectively. Since the threshold for SRMR is  $<0.08$  and for RMS theta is  $<0.12$ . it means the model was considered a good fit. NFI was 0.0927 which is  $> 0.90$  for the cut off threshold of 0.90 implying that the model is good incremental fitness.

**Table 4.46: Fitness Indices for Educators Network Moderated Model**

Measure	NFI	SRMR	RMS_theta
Estimate	0.927	0.057	0.055
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

The model including the moderating variable environmental dynamism and interaction variable (Educators network interaction environmental dynamisms) was significant with all factors having significant effect on entrepreneurial propensity. The interaction variable was found to be significant which implies that environmental dynamisms has significant effect on the relationship between educators network and entrepreneurial propensity.

The moderating effects of environmental dynamism on the relationship between educators Network and Entrepreneurial propensity was performed by introducing the interaction term Network\*Dynamism as a predictor alongside educators network and environmental dynamism. The results indicate that environmental dynamisms moderated the relationship between educators' network and entrepreneurial propensity where  $t = 2.378$ ,  $p\text{-value} = 0.019 < 0.05$ . When the moderating variable was introduced against the independent variable (Educators network), its effect on the dependent variable  $\beta = -0.141$ , meaning that the educators network decreased entrepreneurial propensity by 14% when interrupted with a moderator (Environmental dynamisms). The coefficient of determination  $R^2$  between educators' network and a moderating variable ED indicated a change of 0.025 or 2.5%. Meaning when ED is introduced in the latent variable educators networks, the dependent variable changes by 2.5 %. Environmental dynamisms is characterised by rapidly changing dynamics of an organizational environment. Uncertainties and opportunities may be affected or may even change the position of an organization and bring about severe market competition (Sharfman & Dean, 1991).

Such changes in the environment can increase an individual's uncertainty (Dess & Beard 1984). The unpredictability and the uncertainties that exist in the environment contributed to the negative influence that educators have on entrepreneurial propensity when the moderator is introduced. Although not much has been studied on the effect of environmental dynamisms and entrepreneurship education, this study borrowed secondary literature from the effect that environmental dynamisms has on business organization which, the effect applied on entrepreneurship education.

The study also adds to the body of knowledge on the relationship between entrepreneurship education and environmental dynamism. Whether students will get into entrepreneurship or not is a decision they have to make that is mired of uncertainty. Their decision at that time may be determined by the prevailing environmental conditions of the time. This argument may explain why when moderating variable was introduced, the effect was negative.

To test for moderation, there is need to establish a significant interaction between the proposed moderator and the variables Sharma; Durand & Gurand & Gur -Arie (1981). For this reason, the interaction term (EN\*ED) was introduced in the model. Its significance was determined by assessing the magnitude of the P- value as shown in Table 4.47. All the variables in the model loaded well hence producing the resultant path diagram. All path coefficients were significantly different from zero at the level of  $P < 0.05$  as shown in Figure 4.6. The coefficient of interaction variable educators' network intersection environmental dynamisms statistics was 2.602 The 1.96 is the Z score value above which is the coefficient in the model considered to be significant at 0.05 levels of significance.



This study therefore concluded that environmental dynamisms moderate the relationship between educators' network and entrepreneurial propensity. While it has been proven by previous studies that educators network plays a major role in inculcating entrepreneurial propensity among students, environmental dynamisms determines how effective this is achieved.

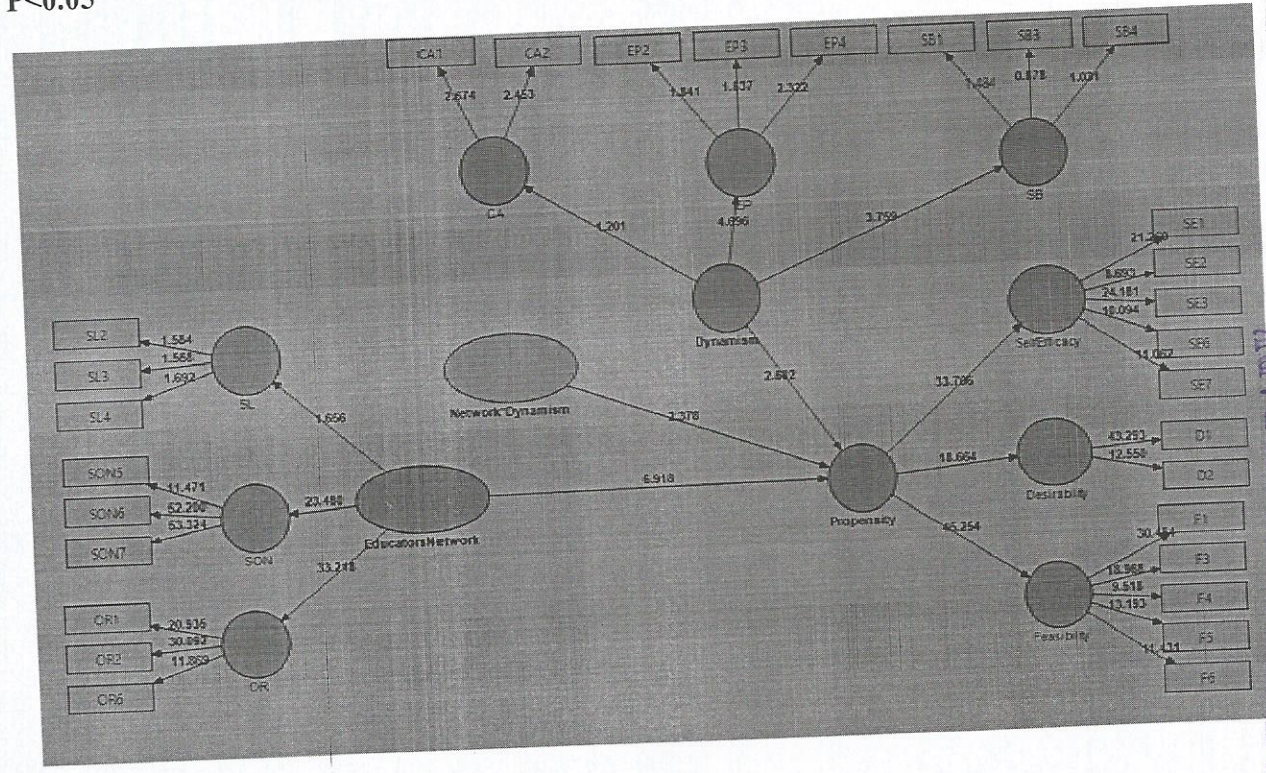
Universities should therefore align themselves with the dynamisms of the environment for instance the changes in the market, readiness for technological changes, as well as adoption of new methods of doing business and application of technologies and innovations. Failure to which, the long sought solution for unemployment rate in Kenya through the introduction of entrepreneurship education maybe far from being achieved. Universities should not live in isolation, instead should look at ways and means of how they can mingle with the communities around in order to facilitate the transfer of knowledge. The positive changes in the environment should be infused to the students so that they too can adapt to the changes early enough before they leave the University upon graduation.

With an incorporation of environmental dynamism in entrepreneurship education, the educators' social links will be strengthened, students are bound to get attachments with ease, and their ability to recognize entrepreneurial opportunities will be heightened. Since educators network has direct effect on entrepreneurial propensity, there is need to rethink on how this important entrepreneurship education component can be strengthened in order to facilitate an entrepreneurial propensity among the students.

**Table 4.47: Regression Weight for Educators Network Moderated Model**

Path	Beta	Standard Error	T Statistics	P values
Dynamism -> Propensity	0.111	0.043	2.602	0.010
Educators Network -> Propensity	0.582	0.084	6.918	0.000
Network*Dynamism -> Propensity	-0.141	0.059	2.378	0.019

P<0.05



**Figure 4.6: SEM for Educators Network Moderated Model**

**4.10.3 Entrepreneurship Curriculum and Entrepreneurial Propensity**

The third specific objective of this study was to assess the relationship between entrepreneurship curriculum and entrepreneurial propensity among entrepreneurship University students in Kenya. The study was guided by a hypothesis:

*H<sub>03</sub>: There is no relationship entrepreneurship curriculum and entrepreneurial propensity among University students in Kenya*

Conclusions on this objective were drawn on the objective by fitting a model which shows the influence of entrepreneurial propensity among entrepreneurship University students in Kenya and testing for the fitness and the effect determined for significance of the model. The fitness indices, SRMR, NFI and RMS theta were used as fitness tested for the model. Table 4.48 presents the results of the fitness indices. RMS theta was 0.091 while statistical test for SRMR was 0.079 respectively. The model was thus found to be fit based on SRMR goodness of fit and for RMS goodness of fit model. The incremental fit measures NFI was 0.911. This shows that the fitted model on the effect of entrepreneurship curriculum on entrepreneurial propensity was of good incremental fit. NFI of a well fitted model should be  $<0.12$  as shown in Table 4.48. The overall fit indices suggested an acceptable fit for entrepreneurship curriculum hence supporting the construct.

**Table 4.48: Model Fits for Entrepreneurship Curriculum Moderated Model**

Measure	NFI	SRMR	RMS_theta
Estimate	0.911	0.079	0.091
Threshold	$>0.90$	$<0.08$	$<0.12$
Interpretation	Good fit	Good fit	Good fit

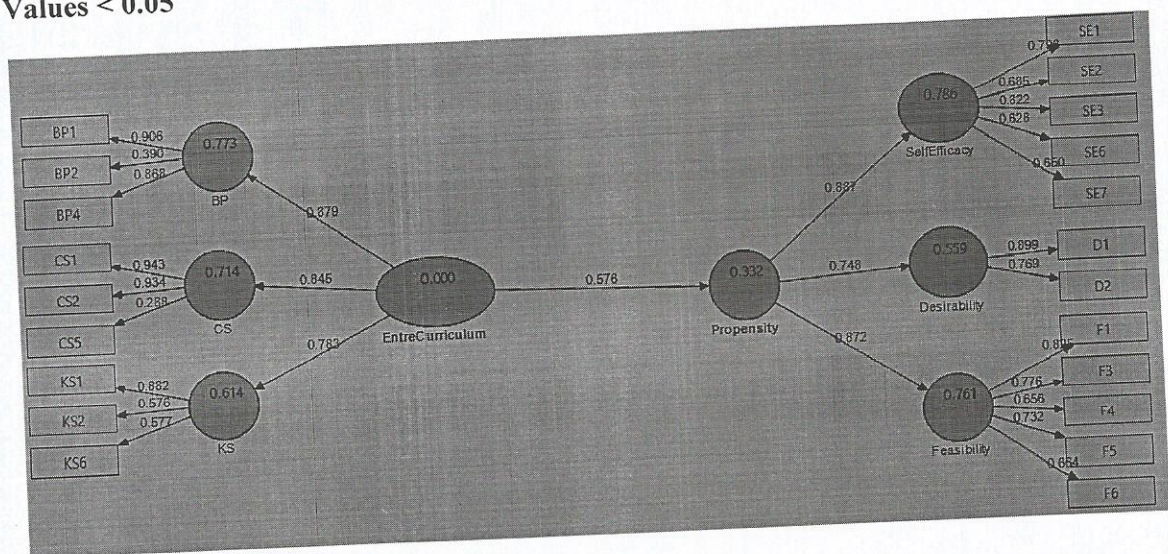
The structural model fitted showed that both the dependent and the independent variables had indicators that load them highly. The observed indicators under this study variable were business planning, case studies knowledge and skills load highly on entrepreneurship curriculum, while the observed indicators that self efficacy, Desirability and feasibility were found to load highly on entrepreneurial propensity. Entrepreneurship curriculum was found to have a positive relation with entrepreneurial propensity. The path coefficient of entrepreneurship curriculum on entrepreneurial propensity was 0.576. The results for the structural model estimate are represented in Table 4.49 and in Figure 4.7.

All factors included in the model were found to have positive significant regression weights, meaning that the variable entrepreneurship curriculum has a high significant positive relationship with entrepreneurial propensity among University students in Kenya.

**Table 4.49: Regression Weight for Entrepreneurship Curriculum Moderated Model**

Path	Beta	Standard Error	T Statistics	P values
Curriculum* <b>Dynamism -&gt; Propensity</b>	0.332	0.137	2.414	0.017
<b>Dynamism -&gt; Propensity</b>	0.014	0.071	0.200	0.842
<b>Entre Curriculum -&gt; Propensity</b>	0.454	0.062	7.370	0.000

Values < 0.05

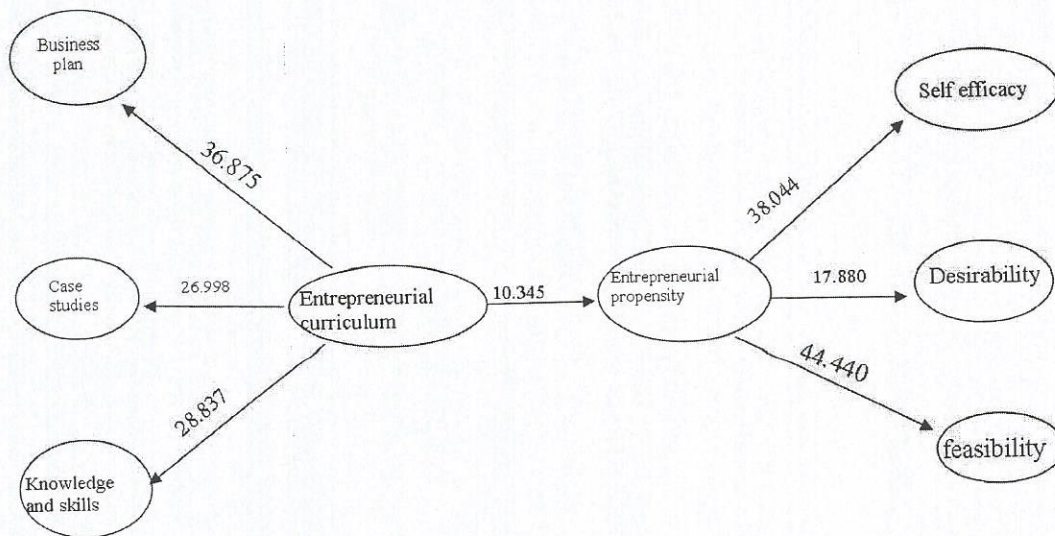


**Figure 4.7: SEM for the Hypothesized Entrepreneurship Curriculum**

The path coefficient for the hypothesized relationship between entrepreneurial propensity and entrepreneurship curriculum is 0.576. This means the dependent variable (entrepreneurial propensity) can be explained by 58% of entrepreneurship curriculum. It means one unit of increase in entrepreneurship curriculum increases entrepreneurial propensity by 58% as shown in Figure 4.8. This path coefficient is significant at  $t = 10.345$ , and a  $p\text{-value} = 0.000$  as shown in Figure 4.8. The study rejects the null hypothesis (H03) and concludes that there is a relationship between entrepreneurship curriculum and entrepreneurial propensity among University students.

Katz (2003) pointed out that entrepreneurship education curriculum is best placed to equip students with the necessary skills and knowledge that is required to prepare students in a working environment. A study by Oyugi (2014) on the effectiveness of the methods of teaching entrepreneurship course to developing self-efficacy and intentions among University students in Uganda indicated that among the Industrialised Countries entrepreneurship curriculum is tailored towards learning and facilitating an entrepreneurial propensity. That is to mean entrepreneurship curriculum focuses on 'what is to be done' and 'how to make it happen'. A study by Solomon (2007) on an examination of entrepreneurship education in the United States revealed that entrepreneurship curriculum did not have a significant impact on entrepreneurship related ideas. In his study, Solomon (2007) highlighted issues such as attitude towards entrepreneurship and the level at which entrepreneurship was introduced as the main factors that motivated students toward entrepreneurship.

Entrepreneurship curriculum developers should consider emphasizing those courses that enhance entrepreneurial propensity in entrepreneurship students. Incorporating active participatory courses ought to be emphasized. The assumption in this study is that proper coverage of the curriculum contributes to entrepreneurial propensity. Curriculum developers can also consider generation and launching of those ideas to the market as some of the activities to be covered in order to enhance creativity and innovation among the students.



**Figure 4.8: Test Significant Results for Entrepreneurship Curriculum**

#### **Environmental Dynamism on the relationship between Entrepreneurship curriculum and Entrepreneurial Propensity**

The moderated effect of environmental dynamism is determined by introducing an interaction variable (Entrepreneurial Curriculum and Environmental Dynamism) to the model and then testing for the fitness of the model for significance of the parameters in that model. The fitness indices of the moderated model in this study met both the absolute fitness and the incremental indices fitness requirements. The results of the indices for the moderated effect model on the relationship between entrepreneurship curriculum and entrepreneurial propensity are presented in Table 4.50.

The RMS that was 0.091 and the statistical SRMR was 0.079 indicating a good absolute goodness of fit model. A good absolute fitness of good model is where RMS is  $<0.12$  and SRMR is  $<0.08$  and in this case, these conditions were met. The model also met the conditions for the incremental fitness where NFI was 0.911 and since the results were  $>0.90$ , it means it was a good incremental fitness model.

**Table 4.50: Fitness Indices for Entrepreneurship Curriculum Moderated Model**

Measure	NFI	SRMR	RMS_theta
Estimate	0.911	0.079	0.091
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

The moderating effects of environmental dynamism on the relationship between entrepreneurship curriculum and entrepreneurial propensity was performed by introducing the interaction term Curriculum\* Dynamism as a predictor alongside entrepreneurship curriculum and environmental dynamism. Two variables that is entrepreneurship curriculum and Environmental dynamism had positive regression weights ( $t = 2.414$ ,  $p$ -value = 0.017) indicating that the two had positive effect on entrepreneurial propensity. When the moderating variable was introduced against the independent variable (Entrepreneurship curriculum), the effect gave a positive of a positive of 0.332.

When the environment is undergoing rapid changes in the technologies rapid competition in the markets, ventures relay on the response capabilities in order to cope with the external conditions and hence are able to survive in the new dispensed environment (Jiao, 2011). Being proactive and having proper strategies in place, and having real-time information can enable sustainability and proper adjustment in any prevailing environment (Jiao, 2011).

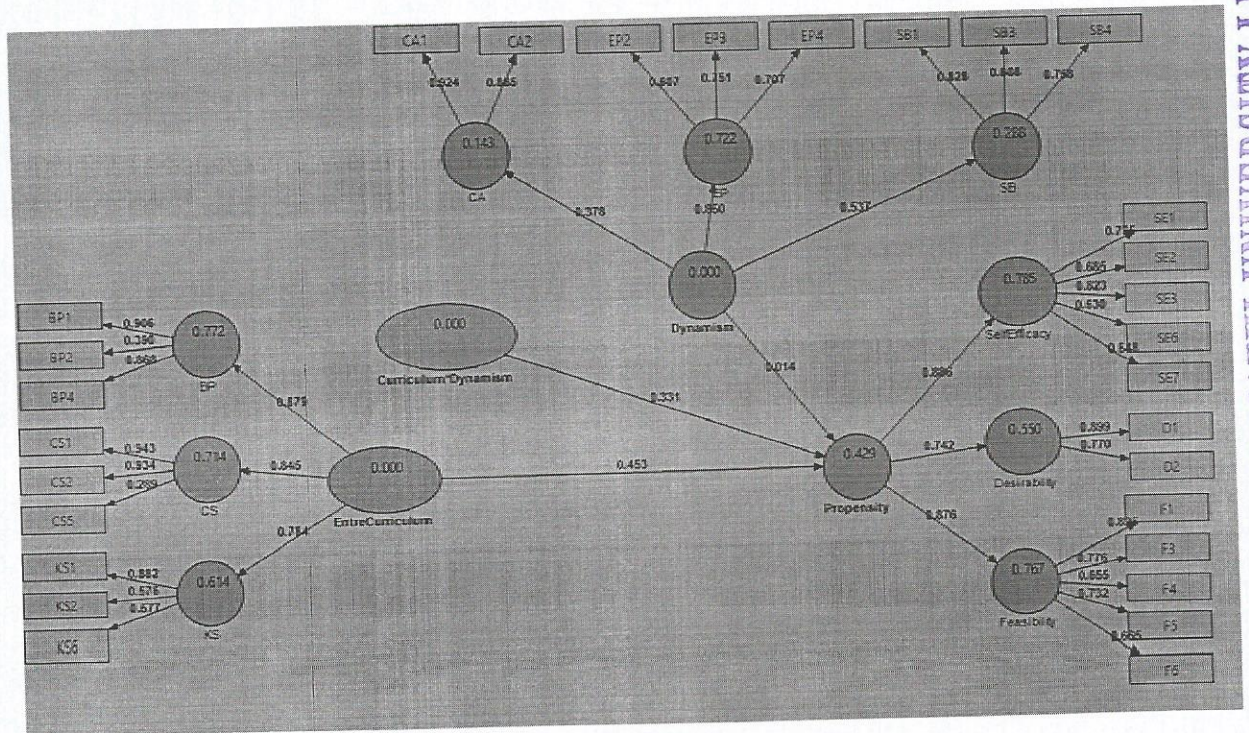
Before any new curriculum is introduced and launched in an institution, curriculum developers have to consider all the environmental prevailing conditions. All those conditions are then considered and catered for in the new curriculum.

This can therefore explain why, when the interaction of dynamisms was introduced in the curriculum variable, the interaction term was positive (suggesting that the moderator had positive effect on the relationship between entrepreneurship curriculum and entrepreneurial propensity. The study therefore concludes that environmental dynamism positively moderates the relationship between entrepreneurship curriculum and entrepreneurial propensity.

**Table 4.51: Regression Weight for Entrepreneurship Curriculum Moderated Model**

Path	Beta	Standard Error	T Statistics	P values
Curriculum*Dynamism -> Propensity	0.332	0.137	2.414	0.017
Dynamism -> Propensity	0.014	0.071	0.200	0.842
Entre Curriculum -> Propensity	0.454	0.062	7.370	0.000

PValues<0.05



**Figure 4.9: SEM for Entrepreneurship Curriculum Moderated Model**



#### 4.10.4 Entrepreneurship Ecosystem and Entrepreneurial Propensity

The fourth specific objective of this study was to determine the relationship between entrepreneurial ecosystem and entrepreneurial propensity among entrepreneurship University students in Kenya. The null hypothesis to be tested therefore was:

*H<sub>0</sub>4: There is no relationship between entrepreneurship ecosystem and entrepreneurial propensity among University students in Kenya*

A model was fitted and tested to show the influence of entrepreneurial ecosystem on entrepreneurial propensity among University students in Kenya and test the significance of the influence. The fitness indices, SRMR, RMS theta and NFI were used as in the summary of the results in Table 4.52. From the results RMS theta was 0.084 and SRMR was 0.071. SRMR <0.08 and <0.012 RMS theta are the thresholds for implying that the model is a good fit. The incremental fit measure NFI was 0.925. This shows that the fitted model on the effect of entrepreneurship ecosystem on entrepreneurial propensity was of good incremental fit. NFI of a well fitted model should be above 0.8 as shown in this model.

**Table 4.52: Fitness Model for Entrepreneurship Ecosystem and Propensity**

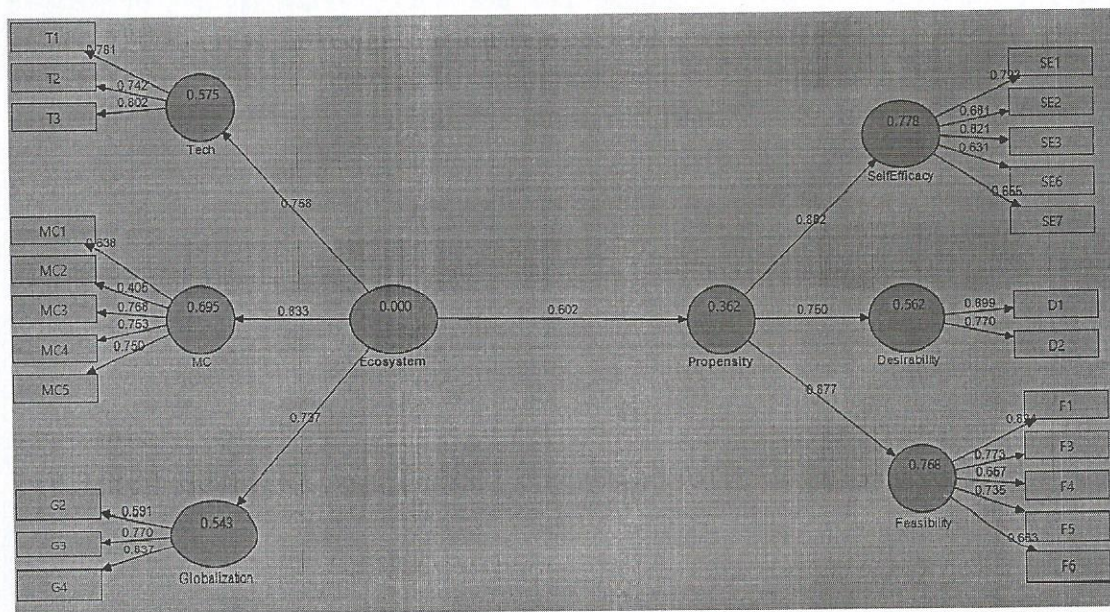
Measure	NFI	SRMR	RMS_theta
Estimate	0.925	0.071	0.084
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

Table 4.53 and Figure 4.10 present the results for the structural model estimated to show the relationship between entrepreneurial ecosystem and entrepreneurial propensity among University students in Kenya. The structural model for entrepreneurial ecosystem and entrepreneurial propensity showed that the measure of observed indicators (The surrounding Businesses, Enabling Policies and the community around) load the independent variable (Entrepreneurial Ecosystem).

Entrepreneurial ecosystem revealed a positive relationship with entrepreneurial propensity. The path coefficient of entrepreneurial ecosystem on entrepreneurial propensity was 0.602. All factors included in the model were found to be positive significant regression weights indicating that the variable entrepreneurial ecosystem has a significant positive relation with entrepreneurial propensity among University students in Kenya.

**Table 4.53: Regression Weight for Entrepreneurship Ecosystem**

Path	Beta	Standard Error	T Statistics	P values
Ecosystem -> Globalization	0.737	0.039	19.131	0.000
Ecosystem -> MC	0.833	0.023	36.000	0.000
Ecosystem -> Propensity	0.602	0.064	9.453	0.000
Ecosystem -> Tech	0.758	0.040	18.968	0.000
Propensity -> Desirability	0.750	0.040	18.735	0.000
Propensity -> Feasibility	0.877	0.018	48.999	0.000
Propensity -> SelfEfficacy	0.882	0.025	35.725	0.000



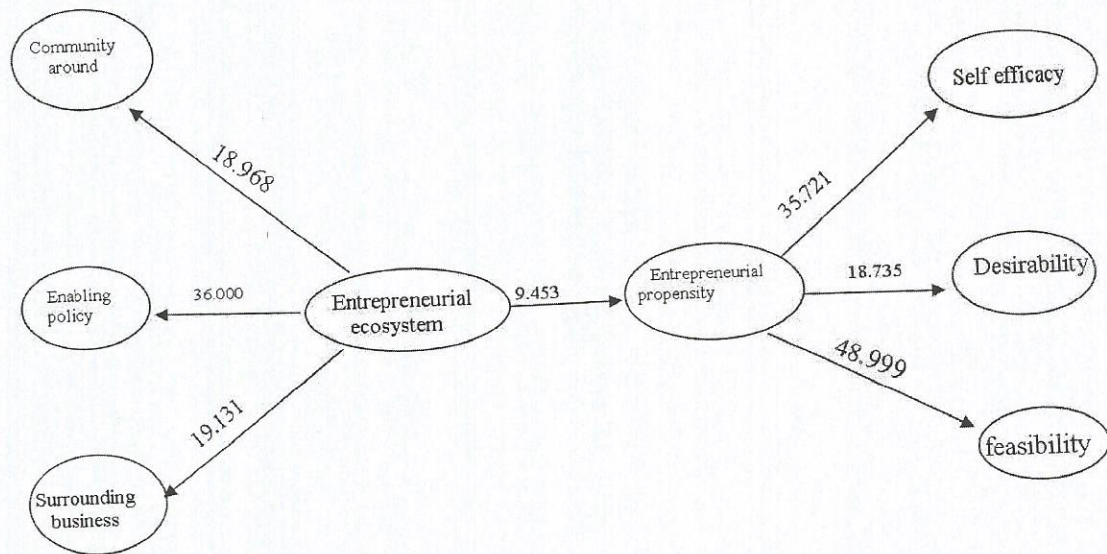
**Figure 4.10: SEM for Entrepreneurial Ecosystems' and Entrepreneurial Propensity**

The hypothesized path relationship between entrepreneurial propensity and entrepreneurship ecosystem is 0.602 this means that if entrepreneurship ecosystem is increased by one unit, entrepreneurial propensity increases by 60.2% as shown in Figure 4.11.

Graham (2015) suggested that an ecosystem that surrounds the University rather than one that is within the University can play a role in inculcating an entrepreneurial propensity among University students. Keeping the ecosystem vibrant, active to venture creation with high level of open communication and openness to informality is a contributing factor to influencing the entrepreneurship studies toward entrepreneurial propensity (Pulkkinen, 2014).

Creating ventures around the University environment can be one way of addressing the unemployment problem Mikkonen, (2015). Mikkonen (2015) argues that the University has people who are knowledgeable, it has sufficient infrastructure which, if appropriately used can lead to successful business ventures. One of the key success factors for entrepreneurship education is effective development of entrepreneurial ecosystems where multiple stakeholders can play a role in the facilitation of entrepreneurship (United Nations Conference on Trade and Development, 2010). Such a system would be expected to be self sustaining and able to enhance relationships between institutions, people and the process that work together with a goal of creating entrepreneurial ventures (United Nations Conference on Trade and Development, 2010).

Encouraging a vibrant ecosystem around Kenyan University will not only address the unemployment problem but will act as an attraction to those taking entrepreneurship course. They will have a lot to learn hence influencing their rate of preparedness to start their own ventures upon graduation.



**Figure 4.11: Significance Test Results for Entrepreneurship Ecosystem**

### **Environmental Dynamisms and Entrepreneurial Ecosystem**

The moderating effect of environmental dynamisms was determined by introducing a interaction (Entrepreneurial Ecosystem and environmental Dynamisms) to the model and testing for the fitness of the fitness of the new model and significance of the parameters in the model. The fitness indices of the moderated model met both the absolute fitness and the incremental fitness requirements. The results of the fitness indices for the moderated effect on the relationship between entrepreneurial ecosystems and entrepreneurial propensity are presented in Table 4.54.

The SRMR statistical values are 0.075, while the RMS theta statistical values are 0.088 therefore meeting the threshold for a well fitted model. The NFI was then analyzed and gave a value of 0.914 a figure greater than 0.8 implying a good incremental fitness of the model.

**Table 4.54: Goodness of Fit for Entrepreneurial Ecosystem Moderated Model**

Measure	NFI	SRMR	RMS_theta
Estimate	0.914	0.075	0.088
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

The model including the moderating variable (Entrepreneurial ecosystem and environmental Dynamisms) was found to be significant with all the factors having significant effect on entrepreneurial propensity. The regression weights are presented in Table 4.55, the path coefficient used for testing moderation EE\* ED was positive meaning that environmental dynamism has a significant effect on the relationship between entrepreneurial ecosystems and entrepreneurial propensity. The moderating effect of environmental dynamism on the relationship between entrepreneurial ecosystem and entrepreneurial propensity was performed by introducing the interaction term Ecosystem\* Dynamism as a predictor variable.

Entrepreneurial ecosystem had positive regression weights ( $t = 3.3788$ ,  $p\text{-value} = 0.001 < 0.05$ ) indicating that the two have a relationship. When the moderating variable was introduced against the independent variable, the effect was positive ( $\beta = 0.3444$ .) This means a unit increase of entrepreneurial ecosystems when interjected with a moderating variable (environmental dynamism) entrepreneurial propensity increases by 34% as shown in Figure 4.12. The coefficient of determination  $R^2$  was 0.112 or 11.2% on EP when the moderator ED was introduced. This reveals that EP when only indicated a change of 0.112 after introduction of a moderator.

Businesses that exist in an environment with vibrant interconnected and positively related ecosystems enter into an era of hyper competition; they tend to drastically shift from a slow moving stable oligopolies type of market to a complicated and unpredictable environment (Griffin & Harvey, 2001). Enterprises within such an environment have to constantly integrate, reconfigure, renew, re-organize and re-create internal and external resources and most importantly upgrade and reconstruct its operational capabilities in order to respond to the dynamic and the rapidly changing market environment in order to attain and sustain a competitive advantage (Treece & Piano, 1994; Winter, 2003). Such capabilities enables' the new ventures to adapt to a complicated business environment.

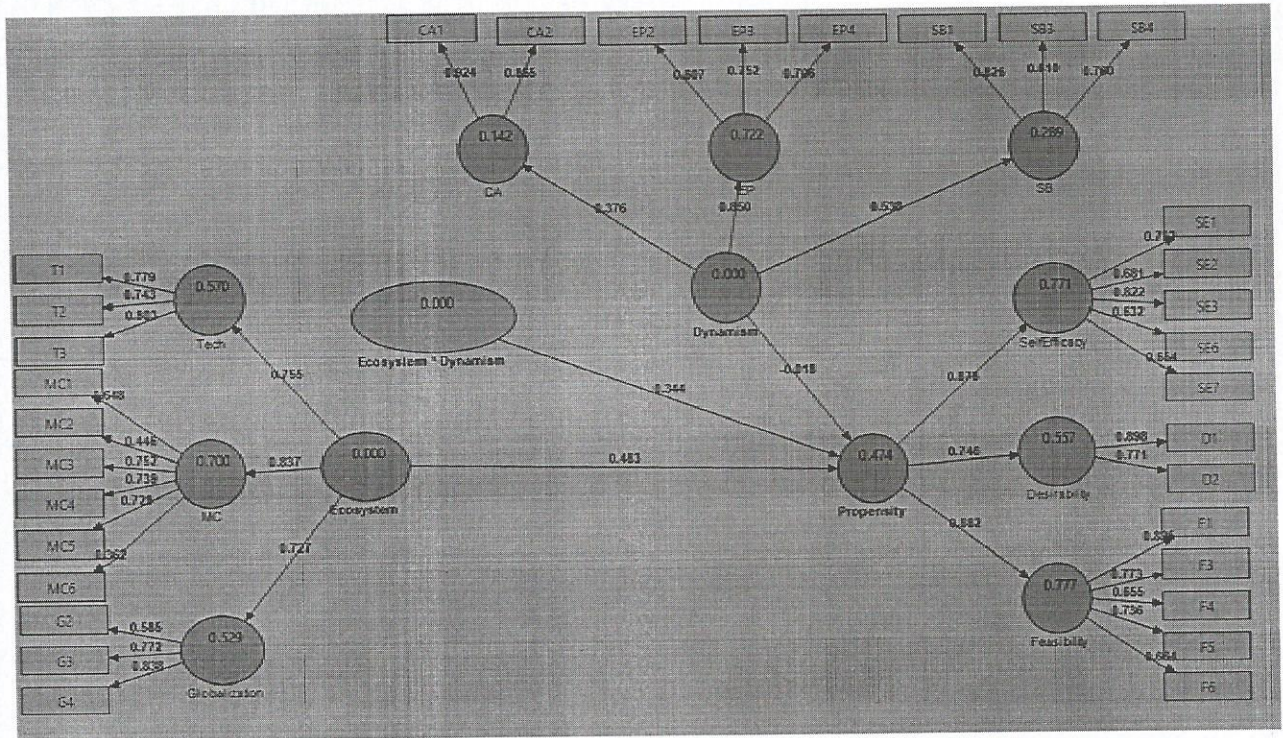
An environment such as explained above is an entrepreneurial environment favourable for new ideas, creativity, inventions and innovations. It can therefore be argued that the interaction of environmental dynamism as a moderator of entrepreneurial ecosystems' would positively enhance to entrepreneurial propensity.

This is because the destructive changes brought about by environmental dynamisms such as market change and technological changes is what entrepreneurs look for in order to be innovative and creative and come up with new product in order to respond to the demand in the market. This therefore can explain why the introduction of a moderating variable (Environmental dynamisms) in between the independent variable (entrepreneurial ecosystems) resulted to  $\beta = 0.3444$ ). If a vibrant ecosystem exists, innovation is likely to take place, new products will be ventured and the existing ones are likely to be improved. The community surrounding such an environment are likely to become enterprising hence inculcating an entrepreneurial propensity among entrepreneurship University students.

**Table 4.55: Regression Weight for Entrepreneurial Ecosystem Moderated Model**

Path	Beta	Standard Error	T Statistics	P values
Dynamism -> Propensity	-0.0181	0.073	0.2475	0.805
Ecosystem -> Propensity	0.4832	0.0677	7.1361	0.000
Ecosystem * Dynamism -> Propensity	0.3444	0.1019	3.3788	0.001

**P Values < 0.05**



**Figure 4.12: SEM for the Moderated Relationship Model**

**Overall Structural SEM Test for the Models**

After the analysis of the relationship and the effects of each independent variable and the dependent variable, a further structural model was fitted to show the overall joint effect of all the independent variables together. The fitted model was then tested for fitness and the effects were determined and tested for significance by use of fitness indices SRMR, NFI and RMS theta.

The summary of the results to the fitness indices are presented in Table 4.56. From the Table, SEMR was .062 and RMS theta was 0.019 .SRMR and RMS theta are the absolute fitness indices considered in structural equation modelling and they indicated a good fit since SRMR was <0.08 and RMS theta was<0.12.

NFI was the incremental fitness of goodness of fit used and the statistical results were 0.931 which were found to be >0.90. This indicates that that the fitted model on the overall effect was of good incremental fit.

**Table 4.56: Model Fitness Indices for the Overall SEM**

Measure	NFI	SRMR	RMS_theta
Estimate	0.931	0.062	0.019
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

Table 4.57 and Figure 4.13 present results for the multivariate structural model which estimated the relationship between all the independent variables against the dependent variables. All the regression weights for the variables revealed a significant level of 0.05 indicating an acceptable specification of the structural equation model (Lomax & Schumacker, 2004). All values for all the independent variables were greater than 1.96, meaning they had significant influence on entrepreneurial propensity among the University students in Kenya.

The coefficient of determination,  $R^2$ , was found to be 0.591 for all the latent variables measured against entrepreneurial propensity endogenous latent variable. This implies that the four latent constructs (Teaching methods, Educator's network, Entrepreneurship curriculum and Entrepreneurial ecosystem) contributed to the dependent variable. 59.1% of the changes in the dependent variable are contributed by the four variables under study.



The inner model suggest that the path coefficient for the hypothesized path coefficient for the relationship between entrepreneurial propensity and entrepreneurship ecosystem was 0.352, Educators Network and Entrepreneurial Propensity was 0.327 , Entrepreneurship Curriculum and Entrepreneurial Propensity was 0.246 and Teaching Methods and Entrepreneurial Propensity was 0.289 were significant with p values of 0.000, 0.000, 0.014 and 0.001 respectively hence the study rejected all the variables under study.

When all variables were combined together, the findings revealed that Entrepreneurial ecosystem has the strongest effect on Entrepreneurial Propensity ( $\beta = 0.352$ ,  $t = 4.951$ ,  $p\text{-value} = 0.000$ ), followed by Educators Network ( $\beta = 0.327$ ,  $t = 4.190$ ,  $p\text{-value} = 0.000$ ), then followed by Teaching Methods ( $\beta = 0.289$ ,  $t = 3.374$ ,  $p\text{-value} = 0.001$ ). The least influence was by Entrepreneurship Curriculum ( $\beta = 0.246$ ,  $t = 2.495$ ,  $p\text{-value} = 0.014$ ) as shown in Figure 4.13, 4.14 and Table 4.57.

A study by (Fayole 2008) indicated that entrepreneurship is a matter of personality and psychological characteristic hence cannot be taught. Kurtko (2003) on the other hand argues that there are some facets of entrepreneurship that can be taught. On the variable regarding to educators network, Thompson, (2009) recognized educators' network as enabling entrepreneurship education.

He mentioned that educator's network enhances entrepreneurial propensity and consequently provokes an individual to make a decision to take entrepreneurship as a career choice.

On the entrepreneurship curriculum, there has been a lot of debate on whether entrepreneurship can successful be integrated into University education curriculum (Gibb, 2002; Hannon, 2005). Hannon (2006) argued that it can be integrated and taught like any other discipline. On entrepreneurial ecosystems, a dynamic ecosystem creates new firms and has better opportunity to grow and create employment as opposed to firms created in other locations (Rosted, 2012).

This study is in agreement with the other studies that the four latent variables contribute to entrepreneurial propensity. The study concurs with the fact that teaching methods, educators' network, entrepreneurship curriculum and entrepreneurial ecosystems positively contribute to entrepreneurial propensity. However the study recognized the need to review the methods used to teach entrepreneurship and make it more artistic in order to facilitate creativity and innovativeness among the students. The curriculum ought to be more practical and students centred and rethinking the surrounding environment as well as the Government policies would play a big role in facilitating entrepreneurial propensity among the students taking entrepreneurship in the Kenyan universities. The dynamics of the environment is not something to be feared but proactive measures and proper management would enable the entrepreneurship students face the dynamics of the environment with ease and look at it as a situation that would enable them to venture into entrepreneurship as a career option rather than drift from it.

**Table 4.57: Regression Weights for the Overall SEM**

Path	Standar			
	Beta	d Error	T Statistics	P values
<b>Ecosystem -&gt; Propensity</b>	0.352	0.071	4.951	0.000
<b>Educators Network -&gt; Propensity</b>	0.327	0.078	4.190	0.000
<b>Entre Curriculum -&gt; Propensity</b>	0.246	0.099	2.495	0.014
<b>Teaching Methods -&gt; Propensity</b>	0.289	0.086	3.374	0.001
<b>PValue&lt;0.05</b>				

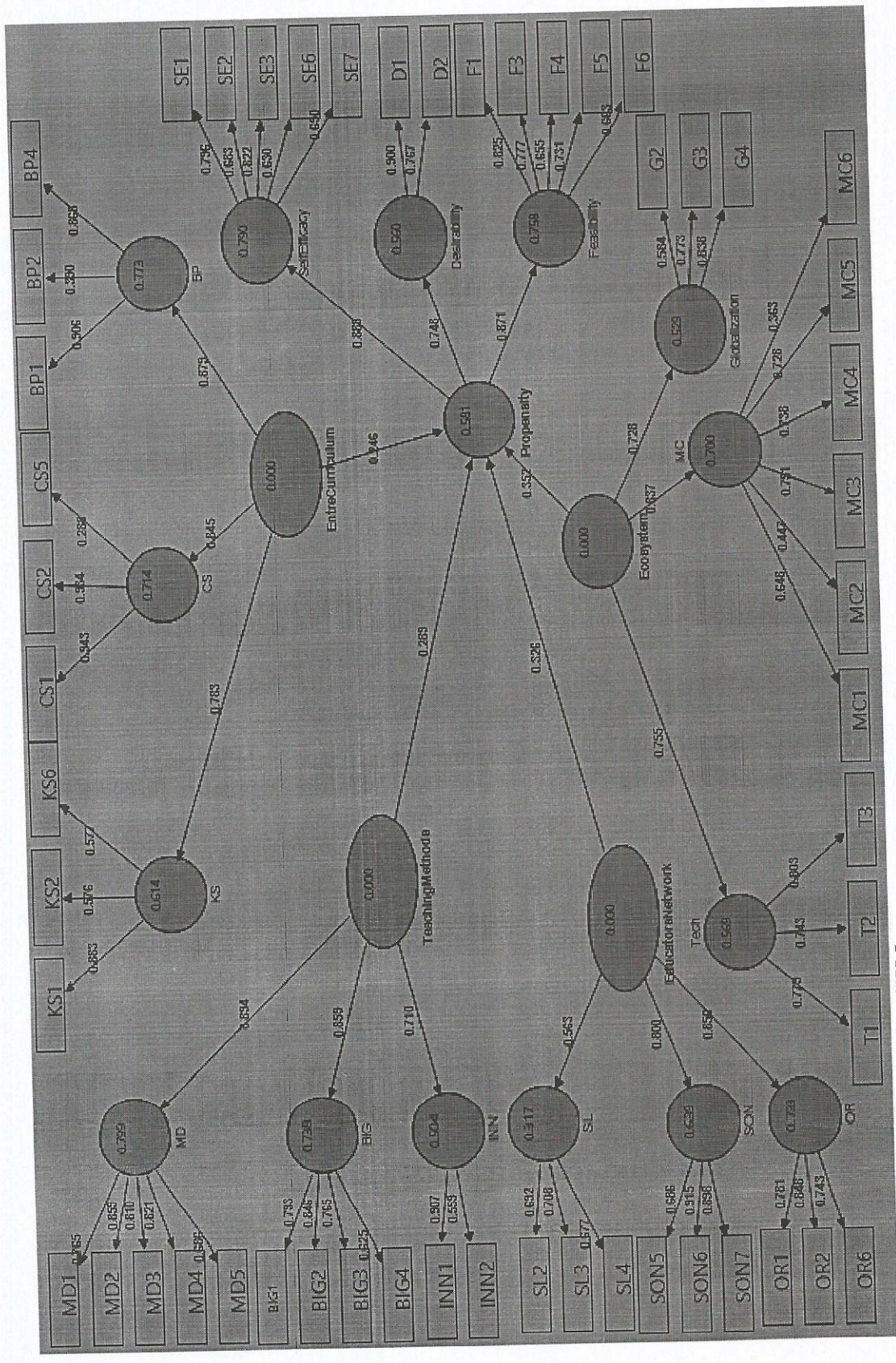


Figure 4.13: Overall Regression SEM

### Confirmatory Overall Structural Equation Model with Moderation

A SEM with environmental dynamism as a moderating variable was carried out by performing an interaction between environmental dynamisms and each of the other independent variables. Resultant interaction variables were generated by using each independent variable as a predictor. Figure 4.14 indicates the structural model.

To test fitness, the fitness indices SRMR and RMS theta and NFI were used. The results summary to the fitness indices are presented in Table 4.58. From the Table, SRMR was 0.029 RMS theta was 0.077 implying that the model was well fitted. SRMR and RMS theta are absolute fitness indices in a structural equation model. A model is said to be of good fitness if  $SRMR < 0.08$  and  $RMS\ theta < 0.12$ .

NFI was used for incremental measures and statistical values were 0.951. This shows that the fitted model on the overall moderating effect of environmental dynamism was of good incremental fit. NFI of a well fitted model should be above 0.8 as is the case in this model.

**Table 4.58: Overall Fitness for SEM with Moderation**

Measure	NFI	SRMR	RMS_theta
Estimate	0.951	0.029	0.077
Threshold	>0.90	<0.08	<0.12
Interpretation	Good fit	Good fit	Good fit

On the joint overall SEM, Environmental dynamism was found to have a moderating influence on the relationship between entrepreneurial propensity and all the independent variables. The interaction variables were all significant.

The path coefficient for teaching method intersection environmental dynamisms was -0.045 and a p value of 0.008 the variable educators' network intersection environmental dynamisms was -0.118 and a p value of 0.040 entrepreneurship curriculum had a path value of 0.092 and a p value of 0.016 while entrepreneurial ecosystem had a coefficient 0.167 and a p value of 0.003. All the P values were less than 0.05. Environmental dynamism did not have a significant moderating influence on the relationship between teaching methods and educators' networks.

It can be concluded that ED moderates the relationship of hypotheses meaning that even with proper teaching methods, good educators networks, a good entrepreneurship and proper entrepreneurial ecosystems, Environmental dynamisms is equally important where market change, technology and globalization are appreciated early by students to ensure success of the enterprises they are likely to venture in after graduation, failure to which, the entrepreneurship education that was meant to enable student develop a positive attitude towards entrepreneurship might have its well stipulated goals and objectives compromised.

Each of the interaction terms (Teaching\*dynamism, Network\*dynamism, Curriculum\*dynamism and ecosystem \*dynamism) were used as predictors alongside environmental dynamism. Table 4.59 indicate that the independent variable with a moderating variable had a statistical significance to the dependent variable. Environmental dynamism moderated the relationship between teaching methods and entrepreneurial propensity ( $t=3.009$  p value=0.003) while Educator's network and Entrepreneurial propensity ( $t=2.427$  p value=0.016), in entrepreneurship curriculum and Entrepreneurial propensity ( $t=2.685$  p value=0.008), Entrepreneurial ecosystem and Entrepreneurial propensity ( $t=2.072$  p value=0.016).

The variable with the strongest relationship when moderated was teaching method followed by entrepreneurship curriculum and then educators' network and the last one was entrepreneurial ecosystems.

When all variables were put together and moderated, two of the independent variables (Entrepreneurship Curriculum) and (entrepreneurial ecosystem) revealed a positive contribution to the dependent variable. While the other two (Educators network) and (Teaching methods) revealed a negative effect to entrepreneurial propensity when moderated together as shown in Table 4.59 and Figure 4.14.

On the coefficient of determination  $R^2$ , the overall coefficient of determination revealed a change of 0.087 or 8.7%. Meaning the change of EP when a moderator is introduced is 8.7% as shown in Table 4.59.

It is the concept of any change such as new venture creation that can be favoured by environmental dynamisms. This is because new ventures bring in the issue of new product manufacturing new services and a proper management system in place. Business and organization do so in order to respond to the change in the environment and achieve better outcomes (Jiao, 2011).

This study found that a moderating variable can either have a positive or a negative effect on the dependent variable when interacted by an independent variable. For instance in this study, it can be argued that the two positive effects that are as a result of an interacted moderating variable are already external (Entrepreneurship Curriculum and Entrepreneurial ecosystems) and that the respondent had no control over them.

Notwithstanding that the two are under the control of the external environment which, before they are started or launched, proper consideration is first put in place unlike the other two (Teaching Methods and Educators networks) whose situation is already determined. The study nevertheless, recognized the important role played by environmental dynamism, not just for behavioural change but also as an enabling factor for entrepreneurship growth and development.

**Table 4.59: Regression Weights for Overall Moderated SEM**

Path	Beta	Standard Error	T Statistics	P values
Curriculum*Dynamism -> Propensity	0.092	0.034	2.685	0.008
Dynamism -> Propensity	0.048	0.019	2.559	0.011
Ecosystem * Dynamism -> Propensity	0.167	0.081	2.072	0.040
Network*Dynamism -> Propensity	-0.118	0.049	2.427	0.016
Teaching*Dynamism -> Propensity	-0.045	0.015	3.009	0.003

PValues<0.05

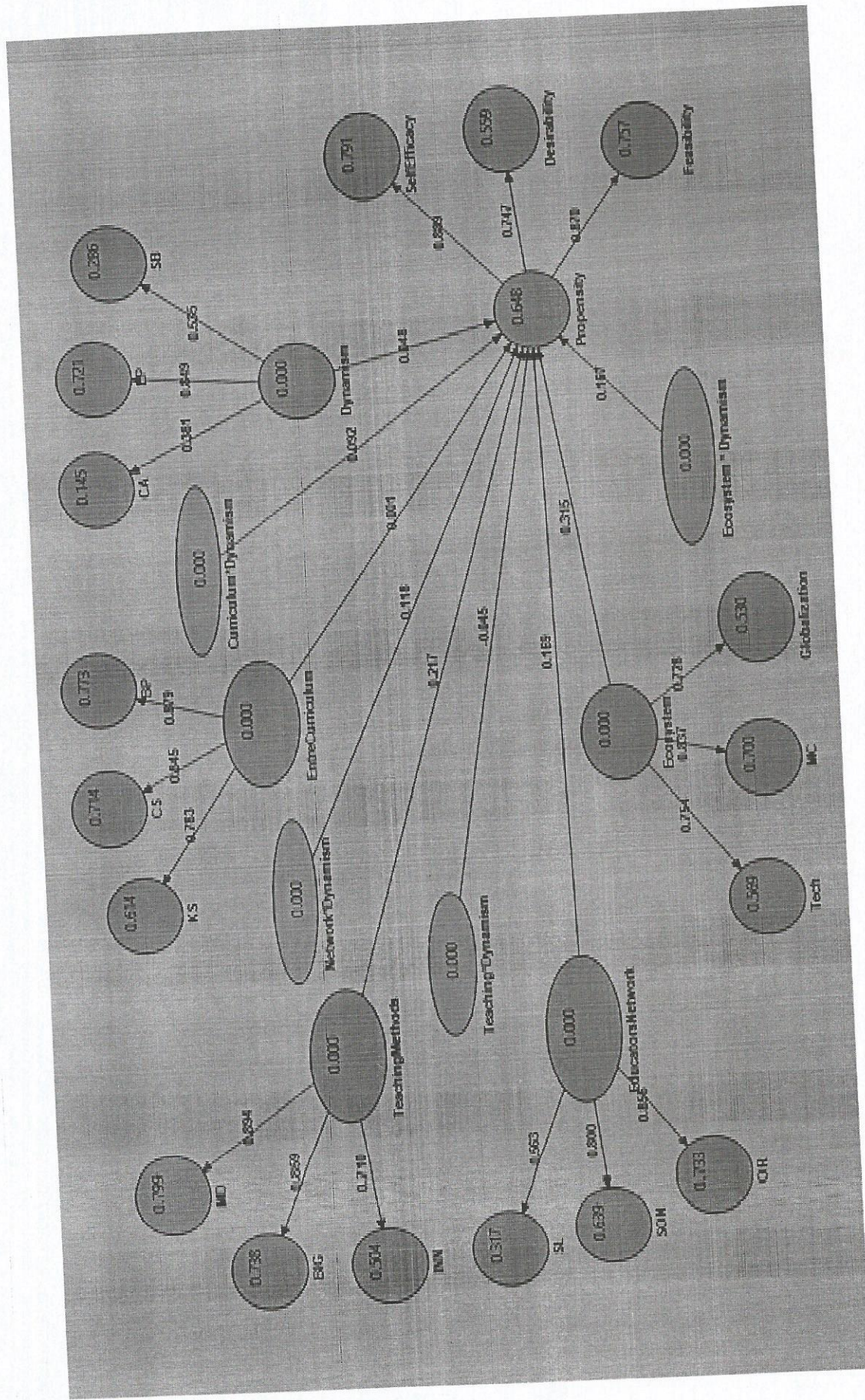


Figure: 4.14 Confirmatory factor analyses for overall SEM



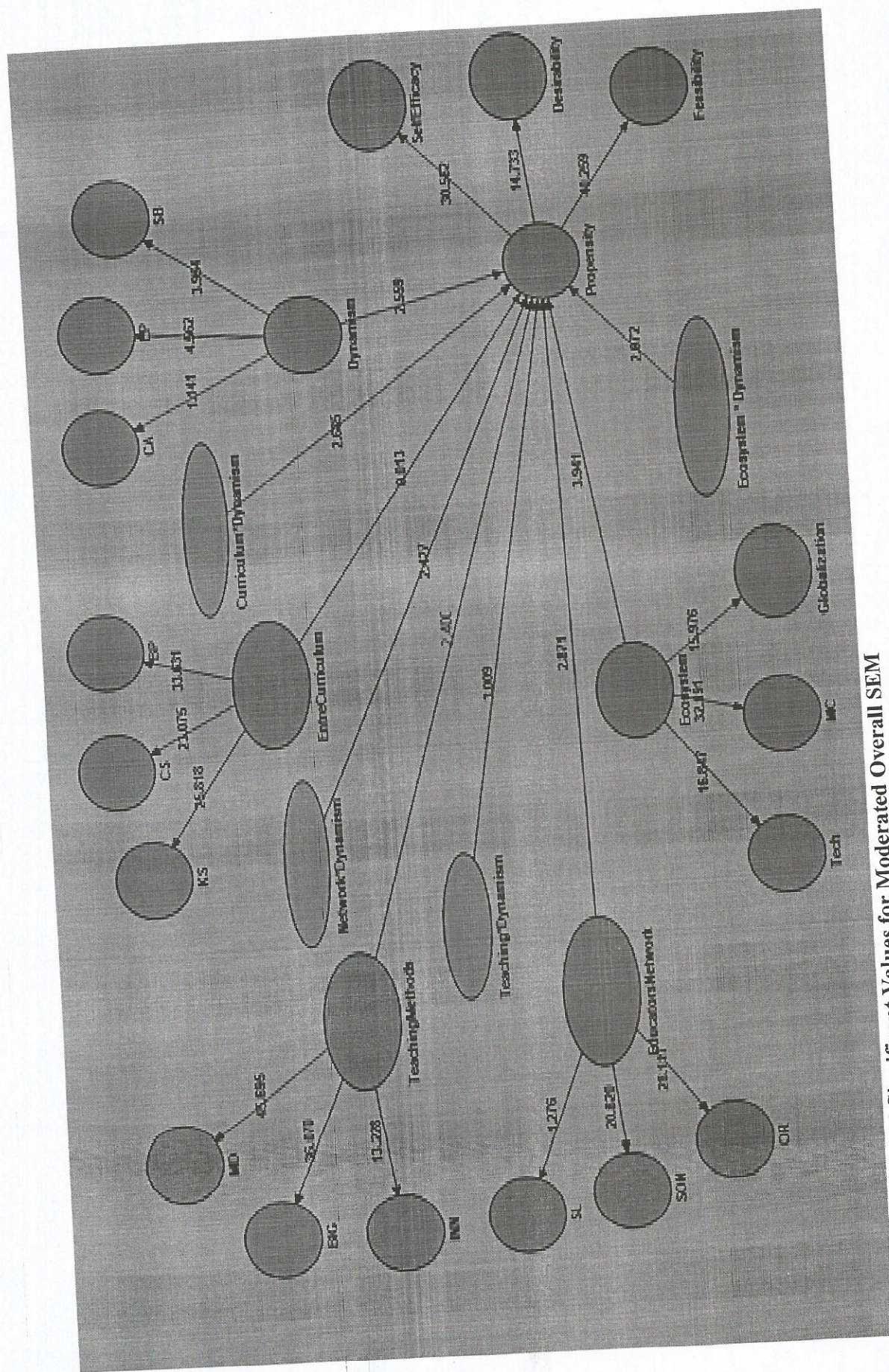


Figure: 4.15: Statistical Significant Values for Moderated Overall SEM

#### 4.11 Moderation by Environmental Dynamism

##### 4.11.1 Moderated Multiple Regressions for Teaching Methods

A hierarchical moderated multiple regression (MMR) was done in order to determine if Environmental dynamism moderates the relationship between relationship teaching methods and Entrepreneurial propensity. Using the MMR analysis, the moderating effect of the variable (Environmental dynamism) was analysed by interpreting 1) the  $R^2$  change in the models obtained from the model summaries, and 2) the regressions coefficients for the product term obtained from the coefficients Tables. This was undertaken in a two step process. At the first step, the independent variable teaching methods and the hypothesized moderator (Environmental dynamism) were entered as predictors. At the next step, the cross product of each independent variables and Environmental dynamism were regressed on the outcome variable to test for interaction effects each step had model 1 and 2. The results are shown in Table 1

In step one there is a significant relationship between the predictor (teaching methods) and Entrepreneurial propensity ( $R^2 = 0.399$ ,  $F = 50.699$ ,  $p < .05$ ). The  $R^2 = 0.399$  shows that teaching methods explains 39.9% of the variation in Entrepreneurial propensity. The remaining 60.9% is due to other factors not captured in this model. Model 1 presents the results for the predictor variable (teaching methods). While results in Model 2 presents the results for the interaction. The results in Model 1 indicate that teaching methods has a significant and positive relationship with Entrepreneurial propensity ( $\beta = 0.621$ ,  $t = 9.889$ ,  $p < .05$ ). The  $\beta$  of 0.621 indicates that a unit change in teaching methods increases Entrepreneurial propensity by 0.621 units, Environmental dynamism being constant.

Further there is an insignificant positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta= 0.078$ ,  $t= 1.246$ ,  $p > .05$ ). Substituting these coefficients to the regression model ( $y = \beta_0 + \beta_1 X + \beta_2 Z + \epsilon$ ), the following equation is obtained

$$\text{Propensity} = 0.484 + 0.621\text{Teaching} + 0.078\text{Dynamism}$$

**Table 4.60: Moderated Effect of Teaching Methods and Entrepreneurial Propensity**

	Model 1			Model 2		
	B	t	P value	$\beta$	t	P value
<b>Step1</b>						
Constant	0.484	4.339	0.000	0.356	3.283	0.001
Teaching	0.621	9.889	0.000	0.448	6.834	0.000
Dynamism	0.078	1.246	0.215	0.091	2.0574	0.041
<b>Step2</b>						
Teaching*Dynamism				-0.362	-5.543	0.000
R	0.631			0.707		
R <sup>2</sup>	0.399			0.5		
Adj. R <sup>2</sup>	0.391			0.49		
Model F	50.699		0.000	50.606		0.000
Change in R <sup>2</sup>	0.399			0.101		
Change in F	50.699		0.000	30.723		0.000

In step 2, the moderation is tested by introducing the interaction term Teaching\*Dynamism. There was a significant relationship between teaching methods and Entrepreneurial propensity ( $\beta= 0.448$ ,  $t= 6.834$ ,  $p < .05$ ). Therefore  $\beta= 0.448$  indicates that a unit change in teaching methods is associated with a 0.448 increase in Entrepreneurial propensity, Environmental dynamism being constant. The  $\beta$  changed from 0.621 to 0.448 after moderation. Further there was a positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta= 0.091$ ,  $t= 2.0574$ ,  $p < .05$ ). A unit increase in Environmental dynamism causes a 0.091 units change in Entrepreneurial propensity, teaching methods being constant.

#### 4.11.2 Moderated Multiple Regressions for Educators Networks

A hierarchical moderated multiple regression (MMR) was done to determine if Environmental dynamism moderates the relationship between relationship educators network and Entrepreneurial propensity.

Using the MMR analysis, the moderating effect of the variable (Environmental dynamism) was analysed by interpreting 1) the  $R^2$  change in the models obtained from the model summaries, and 2) the regressions coefficients for the product term obtained from the coefficients Tables. This was undertaken in a two step process. At the first step, the independent variable (Educators Network) and the hypothesized moderator (Environmental dynamism) were entered as predictors. At the next step, the cross product of each independent variables and Environmental dynamism were regressed on the outcome variable to test for interaction effects each step had model 1 and 2. The results are shown in Table 4.61.

**Table 4.61: Moderated Multiple Regressions for Educators Network**

	Model 1			Model 2		
	$\beta$	t	P value	$\beta$	t	P value
<b>Step1</b>						
Constant	0.184	2.059	0.041	0.216	2.813	0.006
Network	0.649	10.666	0.000	0.583	8.526	0.000
Dynamism	0.095	1.996	0.048	0.109	2.1803	0.031
<b>Step2</b>						
Network*Dynamism				-0.138	-2.017	0.045
R	0.659			0.67		
$R^2$	0.435			0.449		
Adj. $R^2$	0.427			0.438		
Model F	58.801		0	41.342		0
Change in $R^2$	0.435			0.015		
Change in F	58.801		0	4.067		0.045

In step one there is a significant relationship between the predictor (educators network) and Entrepreneurial propensity ( $R^2 = 0.435$ ,  $F = 58.8015$ ,  $p < .05$ ). The  $R^2 = 0.435$  shows that educators network explains 43.5% of the variation in Entrepreneurial propensity. The remaining 56.6% is due to other factors not captured in this model.

Model 1 presents the results for the predictor variable (Educators network). While results in Model 2 presents the results for the interaction. The results in Model 1 indicate that educators network has a significant and positive relationship with Entrepreneurial propensity ( $\beta = 0.649$ ,  $t = 10.666$ ,  $p < .05$ ). The  $\beta$  of 0.649 indicates that a unit change in educators network increases Entrepreneurial propensity by 0.649 units, Environmental dynamism being constant. Further there is an insignificant positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta = 0.095$ ,  $t = 1.996$ ,  $p > .05$ ). Substituting these coefficients to the regression model the following model was obtained ( $y = \beta_0 + \beta_1 X + \beta_2 Z + \epsilon$ ), Entrepreneurial propensity ( $y$ ) =  $0.184 + 0.649$  educators network  $+ 0.095$  dynamism.

As shown in step two, the interaction term educators Network\*Dynamism is significant As shown in step two, the interaction term educators network\*Dynamism is significant ( $\beta = -0.362$ ,  $t = -2.017$ ,  $p < .05$ ). This shows that Environmental dynamism has negative effects on the relationship between educators' network and Entrepreneurial propensity. There was a change in  $R^2$  from 0.435 giving a  $R^2$  change of 0.015 which was significant ( $p$  value 0.000). The change in  $R^2$  is a way to evaluate how much predictive power was added to the model by the addition of another variable in step 2 ( $\beta = -0.362$ ,  $t = -2.017$ ,  $p < .05$ ). This shows that Environmental dynamism has negative effects on the relationship between educators' network and Entrepreneurial propensity.

There was a change in  $R^2$  from 0.435 giving a  $R^2$  change of 0.015 which was significant (p value 0.000). The change in  $R^2$  is a way to evaluate how much predictive power was added to the model by the addition of another variable in step 2.

The social cultural values and beliefs can partially be blamed for the lack of strong networks within the educators and the learners. The belief that a student, even at the University level is somehow inferior and can't question their educator has been held for a long time. The students then suffer when they are looking for areas to go for attachments since the University and the course educators are not actively involved. The study revealed a positive relationship between educators' network and entrepreneurial propensity hence an area that needs to be improved if an entrepreneurial propensity will be attained by students taking entrepreneurship course.

The negative effect of environmental dynamism to entrepreneurship propensity can be caused by not being proactive. The dynamism of an environment can only be attained by individuals and organizations that are proactive. Since the environmental dynamisms are bound to happen, educators should be proactive and adoptive to the changes that may be caused either by the market changes or the technologies and convert them to business opportunities Rammel, (2003).

#### **4.11.3 Moderated Multiple Regressions for Entrepreneurship Curriculum**

A moderated multiple regression (MMR) was done to determine if Environmental dynamism moderates the relationship between relationship entrepreneurship curriculum and Entrepreneurial propensity.

Using the MMR analysis, the moderating effect of the variable (Environmental dynamism) was analysed by interpreting 1) the  $R^2$  change in the models obtained from the model summaries, and 2) the regressions coefficients for the product term obtained from the coefficients Tables. This was undertaken in a two step process. At the first step, the independent variable entrepreneurship curriculum and the hypothesized moderator (Environmental dynamism) were entered as predictors. At the next step, the cross product of each independent variables and Environmental dynamism were regressed on the outcome variable to test for interaction effects each step had model 1 and 2. The results are shown in Table 4.62.

In step one there is a significant relationship between the predictor (entrepreneurship curriculum) and Entrepreneurial propensity ( $R^2 = 0.333$ ,  $F = 38.197$ ,  $p < .05$ ). The  $R^2 = 0.333$  shows that entrepreneurship curriculum explains 33.3% of the variation in Entrepreneurial propensity. The remaining 66.7% is due to other factors not captured in this model.

Model 1 presents the results for the predictor variable (entrepreneurship curriculum). While results in Model 2 presents the results for the interaction. The results in Model 1 indicate that entrepreneurship curriculum has a significant and positive relationship with Entrepreneurial propensity ( $\beta = 0.575$ ,  $t = 8.552$ ,  $p < .05$ ). The  $\beta$  of 0.575 indicates that a unit change in entrepreneurship curriculum increases Entrepreneurial propensity by 0.575 units, Environmental dynamism being constant. Further there is an insignificant positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta = 0.011$ ,  $t = 0.159$ ,  $p > .05$ ). Substituting these coefficients to the regression model ( $y = \beta_0 + \beta_1 X + \beta_2 Z + \epsilon$ ), the following equation is obtained. Entrepreneurial Propensity =  $0.484 + 0.575$  entrepreneurship curriculum  $+ 0.011$  dynamism

**Table 4.62: Moderated Multiple Regressions for Entrepreneurship Curriculum**

	Model 1			Model 2		
	$\beta$	t	P value	$\beta$	t	P value
<b>Step1</b>						
Constant	0.484	6.339	0.000	0.356	3.283	0.001
Curriculum	0.575	8.552	0.000	0.453	6.771	0.835
Dynamism	0.011	0.159	0.874	0.013	2.1209	0.036
<b>Step2</b>						
Curriculum*Dynamism				0.332	5.033	0.000
R	0.577			0.654		
R <sup>2</sup>	0.333			0.428		
Adj. R <sup>2</sup>	0.324			0.417		
Model F	38.197		0.000	37.96		0.000
Change in R <sup>2</sup>	0.333			0.095		
Change in F	38.197		0.000	25.335		0.000

As shown in step two, the interaction term entrepreneurship curriculum\*Dynamism is significant ( $\beta= 0.332$ ,  $t= 5.033$ ,  $p < .05$ ). This shows that Environmental dynamism has positive effect on the relationship between entrepreneurship curriculum and Entrepreneurial propensity. There was a change in R<sup>2</sup> from 0.333 giving a R<sup>2</sup> change of 0.0950 which was significant (p value 0.000). The change in R<sup>2</sup> is a way to evaluate how much predictive power was added to the model by the addition of another variable in step 2.

The positive relationship between entrepreneurship curriculum and entrepreneurial propensity is clear indication that if the laid down entrepreneurship is comprehensively covered, the chances of students taking entrepreneurship starting their own entrepreneurial venture is high. The curriculum operates as the foundation upon which knowledge and decision making is laid. It should be tailored in such a way that it also prepares the students for the environmental dynamics they are bound to face upon graduation. Environmental dynamics ought not to be seen as a hindrance but as an opportunity for new venture creation.



Wu (2007) stated that environmental dynamics are capabilities that significantly help leverage entrepreneurial resources and by so doing benefits the start up performance. Entrepreneurship students, if adequately prepared to view the dynamics of the environment as opportunities and not as hindrances to their venture creation ideas, they can turn around the Kenyan economy through job creation hence creating employment not only for themselves but for other people as well.

#### 4.11.4 Moderated Multiple Regression for Entrepreneurial Ecosystem

A hierarchical moderated multiple regression (MMR) was done to determine if Environmental dynamism moderates the relationship between relationship entrepreneurial ecosystems and Entrepreneurial propensity.

Using the MMR analysis, the moderating effect of the variable (Environmental dynamism) was analysed by interpreting 1) the  $R^2$  change in the models obtained from the model summaries, and 2) the regressions coefficients for the product term obtained from the coefficients Tables. This was undertaken in a two step process.

At the first step, the independent variable entrepreneurial ecosystem and the hypothesized moderator (Environmental dynamism) were entered as predictors. At the next step, the cross product of each independent variables and Environmental dynamism were regressed on the outcome variable to test for interaction effects each step had in model 1 and 2. The results are shown in Table 4.63. In step one there is a significant relationship between the predictor (entrepreneurial ecosystems) and Entrepreneurial propensity ( $R^2 = 0.373$ ,  $F=45.465$ ,  $p < .05$ ). The  $R^2 = 0.373$  shows that entrepreneurial ecosystems explains 37.3% of the variation in Entrepreneurial propensity.

The remaining 62.7% is due to other factors not captured in this model. Model 1 presents the results for the predictor variable (entrepreneurial ecosystems). While results in Model 2 presents the results for the interaction. The results in Model 1 indicate that entrepreneurial ecosystem has a significant and positive relationship with Entrepreneurial propensity ( $\beta=0.633$ ,  $t=9.352$ ,  $p < .05$ ). The  $\beta$  of 0.633 indicates that a unit change in teaching methods increases Entrepreneurial propensity by 0.6330 units, Environmental dynamism being constant. Further there is an insignificant positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta= -0.087$ ,  $t= -2.287$ ,  $p > .05$ ). Substituting these coefficients to the regression model ( $y = \beta_0 + \beta_1 X + \beta_2 Z + \epsilon$ ), the following equation is obtained

$$\text{Entrepreneurial Propensity} = 0.284 + 0.633\text{enviromental ecosystems} + -0.087\text{Dynamism}$$

**Table 4.63: Moderated Multiple Regression for Entrepreneurial Ecosystem**

	Model 1			Model 2		
	$\beta$	t	P value	$\beta$	t	P value
<b>Step1</b>						
Constant	0.284	2.339	0.021	0.256	2.283	0.024
Ecosystem	0.633	9.352	0.000	0.48	7	0.000
Dynamism	-0.087	-2.287	0.024	-0.121	-2.339	0.021
<b>Step2</b>						
Ecosystem*Dynamism				0.349	5.375	0.000
R	0.611			0.688		
R <sup>2</sup>	0.373			0.473		
Adj. R <sup>2</sup>	0.365			0.463		
Model F	45.465		0.000	45.466		0.000
Change in R <sup>2</sup>	0.373			0.1		
Change in F	45.465		0.000	28.892		0.000

Instep 2, the moderation is tested by introducing the interaction term entrepreneurial ecosystems\*Dynamism. There was a significant relationship between entrepreneurial ecosystem and Entrepreneurial propensity ( $\beta= 0.48$ ,  $t= 7$ ,  $p < .05$ ).

Therefore  $\beta = 0.48$  indicates that a unit change in entrepreneurial ecosystems is associated with a 0.48 increase in Entrepreneurial propensity, Environmental dynamism being constant. The  $\beta$  changed from 0.633 to 0.48 after moderation. Further there was a positive relationship between Environmental dynamism and Entrepreneurial propensity ( $\beta = -0.121$ ,  $t = -2.339$ ,  $p < .05$ ). A unit increase in Environmental dynamism causes a -0.121 units change in Entrepreneurial propensity, environmental dynamisms being constant.

Substituting these coefficients to the regression model ( $y = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 X * Z + \epsilon$ ), the following equation is obtained. Entrepreneurial Propensity =  $0.284 + 0.633$  entrepreneurial ecosystem +  $-0.087$  environmental dynamism  $0.349$  entrepreneurial\* dynamism

As shown in step two, the interaction term entrepreneurial ecosystem\*Dynamism is significant ( $\beta = -0.121$ ,  $t = -2.339$ ,  $p < .05$ ). This shows that Environmental dynamism has negative effects on the relationship between teaching methods and Entrepreneurial propensity. There was a change in  $R^2$  from 0.373 giving a  $R^2$  change of 0.1 which was significant ( $p$  value 0.000). The change in  $R^2$  is a way to evaluate how much predictive power was added to the model by the addition of another variable in step 2.

The entrepreneurial ecosystem plays a major role in not only making the environment conducive for entrepreneurship, but also to determine whether an entrepreneurial propensity will be inculcated among the students taking entrepreneurship course. This is because, if the policies are not conducive, the students will shy off from venturing in entrepreneurship. The study revealed a positive relationship between entrepreneurial ecosystem and entrepreneurship propensity.

The community and the businesses surrounding the institution can either positively or negatively influence the decision on whether a student will become an entrepreneur or not. Strong and stable firms within an institution operates as motivating factor. Such an ecosystem reveals that it has withstood environmental challenges hence students can be motivated to operate such an enterprise. Zahra & George (2002) in their study found that environmental dynamics influence the nature and sustainability of firm's competitive advantage. Hence an enterprise that withstands the dynamics of an environment can be said to have identified its competitive advantage and hence is not bound to be shaken by the dynamics of an environment.

#### **4.12 Summary of Hypothesis Testing Results**

The results of hypothesis testing indicate a relationship existed and that the relationship was statistically significant at  $p > 0.05$ . The study also revealed that all the four variables contributed to the dependent variable with the highest being educators network (65%) followed by teaching methods (63%) which then was followed by entrepreneurial ecosystems (60.2%) and the lowest was entrepreneurship curriculum which had 58%. With an interaction of the moderating variable, two independent variable (Entrepreneurship curriculum and entrepreneurial ecosystems) revealed a positive contribution to the dependent variable while the other two (Teaching methods and Educators network) revealed a negative contribution to the dependent variable.

Since the variables were statistically significant the study rejected the null hypotheses under study. The study also revealed an  $R^2$  (Coefficient of determination) at 59.1% meaning 59.1% of the change in the dependent variable (Entrepreneurial propensity) can be explained by 59.1% of the four dependent variables.

When all variables were combined together, the findings revealed that Entrepreneurial ecosystem has the strongest effect on Entrepreneurial Propensity ( $\beta = 0.352$ ,  $t = 4.951$ ,  $p$ -value = 0.000), followed by Educators Network ( $\beta = 0.327$ ,  $t = 4.190$ ,  $p$ -value = 0.000), followed by Teaching Methods ( $\beta = 0.289$ ,  $t = 3.374$ ,  $p$ -value = 0.001). The least influence was by Entrepreneurship Curriculum ( $\beta = 0.246$ ,  $t = 2.495$ ,  $p$ -value = 0.014).

**Table 4.64: Hypotheses Testing Results**

Hypotheses Testing	B	T-Values	P-values	Description
There is no relationship between Teaching Method and entrepreneurial propensity	0.628 <b>(64%)</b>	11.125	0.000	Reject H <sub>01</sub>
There is no relationship between Educators Network and entrepreneurial propensity	0.652 <b>(65.2%)</b>	10.638	0.000	Reject H <sub>02</sub>
There is no relationship between Entrepreneurship Curriculum and entrepreneurial propensity	0.576 <b>(0.576)</b>	10.345	0.000	Reject H <sub>03</sub>
There is no relationship between Entrepreneurial Ecosystems and entrepreneurial propensity	0.602 <b>(60.2)</b>	9.453	0.000	Reject H <sub>04</sub>

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The summary of the study are presented in this chapter as guided by the specific objectives. These are followed by conclusion and recommendations. The chapter finally has given direction on areas of further research.

#### 5.2 Summary of Findings

The general objective of this study was to investigate entrepreneurship education, environmental dynamism and entrepreneurial propensity among University students in Kenya. Study relied on theoretical and empirical studies on entrepreneurship education and consequently developed a conceptual model of the relationship between the predictors and the dependent variable. The hypothesized relationships were then empirically tested.

Prior the empirical test, certain assumptions about the variables that were used in the analysis was tested. This is because most statistical tests rely on them. The study found no violation of the assumptions of normality, multicollinearity, linearity, outliers, non-response bias and common method variance.

##### 5.2.1 Influence of Teaching Method and Entrepreneurial Propensity

Teaching methods had a relationship with entrepreneurial propensity among University students in Kenya. Three factors which are delivery method, idea generation and innovativeness contributed to the teaching methods which influenced entrepreneurial propensity. Hence the hypothesis that there is no relationship between teaching methods and entrepreneurial propensity among University students was rejected.

Teaching method and entrepreneurial propensity had a statistical significant relationship with entrepreneurial propensity among University students in Kenya. A study carried out by Ahamed (2004) suggests that if the objective of the study is to make students entrepreneurs, then the appropriate technique that can be used is carrying out experiments. The same thought is advanced in the experimental learning theory adopted in this study. Since the objective of introducing entrepreneurship education in Kenya was to encourage an entrepreneurial culture among Kenyan students, it can be summarized that use of innovative methods and idea generation still remains vital in inculcating entrepreneurial propensity as supported in this study.

### **5.2.2 The Influence of Educators Network and Entrepreneurial Propensity**

Educators' network had a relationship with entrepreneurial propensity among University students. Two factors under the educators' network that is opportunity recognition and students attachments positively contributed under the second variable which influenced entrepreneurial propensity among the University students among the University student. Educators' network also had a statistical significance on entrepreneurial propensity among University students in Kenya. The hypothesis that educators network does not influence entrepreneurial propensity among the University students in Kenya was thus rejected under this study.

A study by Thompson (2009) revealed that networks are important in helping students' access attachments opportunities in an enterprise environment. It facilitates in developing a resource management skills (Thompson, 2009). This study recognizes the importance of educators' network in exposing the students to an environment that would trigger their entrepreneurial propensity and hence concurs with previous studies on need to encourage educators' network in the Kenyan institutions.

### **5.2.3 Entrepreneurship Curriculum and Entrepreneurial Propensity**

Entrepreneurship curriculum had a relationship with entrepreneurial propensity among University students in Kenya. Factors like business plan writing, case studies and acquisition of knowledge and skills significantly contributed in the entrepreneurship curriculum which influenced entrepreneurial propensity among the University students in Kenya. Thus the hypothesis that there is no relationship between entrepreneurship curriculum and entrepreneurial propensity among University students was rejected.

A study by Fayole (2008) revealed how curriculum differs in different Countries depending on objectives, audience, format and pedagogy all based on what the institution wants to achieve. This study revealed the importance of emphasizing case studies that are indigenous as well as the importance of knowing how to write a business plan. A study by Solomon (2002) highlighted the role that business plan writing and case studies play in learning entrepreneurship course. In summary this study found that the two (business plan writing and case studies) are vital and were covered in the entrepreneurship curriculum.

### **5.2.4 Entrepreneurial Ecosystem and Entrepreneurial Propensity**

Entrepreneurial ecosystem had a positive relationship with entrepreneurial propensity among University students in Kenya. Factors like the surrounding businesses and enabling policies contributed in the entrepreneurial ecosystem which influenced entrepreneurial propensity among University students in Kenya. There is also a statistical significance between entrepreneurial ecosystem and entrepreneurial propensity among University students in Kenya. The study therefore rejected the null hypothesis that there is no relationship between entrepreneurial ecosystem and entrepreneurial propensity among University students in Kenya.



A study by Moore (1993) revealed that where a dynamic ecosystem exists, firms have an opportunity of growth and also employment creation. The rate of unemployment in Kenya is what this study focused on especially among University graduates. Since businesses can never exist in a vacuum (Moore, 1993), and they interact with suppliers, customers and financing institutions, an enabling environment that warrants such an interaction is favourable for learning and employment creation.

### **5.2.5 Moderating Independent and Dependent Variables**

The moderating variable (environmental dynamisms) was used against all the independent variables to test the variables when interjected with a moderator. From the study, entrepreneurship teaching methods revealed a positive relationship with entrepreneurial propensity. When then the moderator was interjected, the contribution of teaching methods to entrepreneurial propensity gave a negative connotation. The variable under study is about change and uncertainties that are not predictable but bound to affect entrepreneurial propensity either negatively or positively. Dess & Beard (1984) noted that environmental dynamisms are unpredictable rapid changes which can increase an individual's uncertainties. Waldman (2001) also highlighted that the uncertainties within the environment that entrepreneurs are faced with can be caused by lack of information. It can therefore be argued that the curriculum is usually prepared from some informed decision and so does entrepreneurial ecosystem hence the positive influence it has on entrepreneurial intention. Teaching methods and educators' network were negatively related to entrepreneurial propensity when the moderating variable was interjected. In this study only entrepreneurship curriculum and entrepreneurial ecosystem revealed a positive contribution the moderating variable was applied.

Although not much but has been studied on environmental dynamism as a moderator in entrepreneurship education and how it influences entrepreneurial propensity, this study has added to the body of knowledge on the importance of applying moderating variable (environmental dynamisms) in entrepreneurship education research.

### **5.3 Conclusion**

The results on teaching methods revealed that an effective teaching method of entrepreneurship can facilitate an increase in students' interest towards considering entrepreneurship as a career option as was also noted by Gelard and Saleh (2011). This is possible to attain because entrepreneurship education can equip the learner with the required knowledge and skills effectively.

The entrepreneurship education process can effectively advice the students on how to tackle challenging situations and the complexities involved in decision making in considering entrepreneurship as a career option among entrepreneurship students (Izquierdo and Buelens, 2011). During the learning process the perception and the impediments that are related with entrepreneurship as a career option can be downplayed and consequently students may be motivated to create their own ventures and establish their business start –ups (Ahmad, 2010).

The experiential theory highlights learning as an integral part of entrepreneurial process. Shane (2001) notes that entrepreneurship activities change from time to time hence entrepreneurs must try to keep afloat with new information. There will always be new experiences in entrepreneurship and changes to be accommodated as is supported by experiential learning theory (Roe, 2006). In this study, the method used to teach entrepreneurship was found to be rather passive, one that does not allow aggressive students participation.

Bennett (2006) pointed that a passive and less active participatory method does not refer an entrepreneurial propensity among the learners. If students would be allowed to do experiments and interact freely with the environment, they would be more creative and innovative which qualities of entrepreneurial behaviour and as supported by experimental learning theory. Fiet (2000) reported that educators tend to use passive methods because they are easier and requires less investment. The experiential learning theory states that people acquire knowledge which is then translated into a behaviour which can be applied when an opportunity is recognized (Carwell, 2000). This study did not note any institution investment that directly aimed at improving the methodology used to teach entrepreneurship and one that would facilitate students' direct participation.

On educators network the study revealed that a relationship between educators' network and entrepreneurial propensity exists. Gatchalian (2010) pointed out the importance of networks and the role they play in delivering entrepreneurship education to students. The gap between the educators and the learners ought to be narrowed in such a way that the learners can learn from the social networks of the educators. This study revealed very minimal interactions between educators and their network. This can be blamed on the Kenyan culture of respecting the elders. In the institutions of higher learning, narrowing this gap can facilitate easy acquisition of students' attachment; something the study noted that the educators had very minimal participation.

The theory of planned behaviour by Ajzen, (1988) supports external interaction in order to inculcate an entrepreneurial propensity. The theory purports that attitude can be assessed with respect to organizations such as church, public house and government agencies. For students to access such organizations, their educators have to intervene.

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The theory explains formation of attitude which has to be in line with the norms accepted by the society which eventually behaviour is acquired. In support of this theory, educators' network ought to be strengthened, so that it can trickle down to benefit their students and consequently enable them formulate an entrepreneurial propensity among the students taking entrepreneurship course.

Regarding entrepreneurship curriculum, when it is adequately covered results in students being equipped with technical know-how, real life skills, knowledge and some experiences which they never had before hence increasing their entrepreneurial propensity considerably as was noted in this study. From the study, the curriculum covered most important elements such how to write a business plan, exposure to case studies that enabled them acquire knowledge and skills that propelled them to entrepreneurial propensity.

Entrepreneurship curriculum exposes students to situations that can help them understand how to bear risk as supported by risk bearing theory. The theory as advocated by Frank Knight (1972) argues that entrepreneurs are exposed to a certain direction and control which leads to uncertainties and risk taking. Students still in the University are surrounded by uncertainties about the direction that their future will take hence the anchor they can hold on to positively prepare them to face that uncertainty is a well documented and covered that will enable them lower their levels of uncertainties on what the future holds.

The predictor variables under entrepreneurial ecosystems were the surrounding businesses, Government policies and the communities living around the universities. The study found that there were many mushrooming businesses around the institutions.

However, most of the communities were neither creative nor innovative in their way of doing business and consequently the students had little entrepreneurial skills or knowledge to learn from them. This is mainly because the community were mere business persons and not entrepreneurs. From the entrepreneurial passion theory, by Cardon (2009), an entrepreneurial passion can be stimulated as a result of engaging in an entrepreneurial activity and, for students to engage in an entrepreneurial activity, the ecosystems within where they live must be well interconnected, well enabled and friendly and functional for entrepreneurial functions to take place.

Government policy which was one of the entrepreneurial ecosystems in this study is critical in ensuring entrepreneurship success. This study concluded that as at now, Kenya still lack well explicit entrepreneurship policies. The policies that exist are favourable to small businesses and not to individuals who have the skill and the knowledge to innovate or improve a product. The Government has not fully recognized the creative nature University students have so that they can come up with supportive policies that would favour students who have the ability to either come up with a totally new idea, launch a new product or improve on an existing one, something that can derailing students from considering entrepreneurship as a career option.

Operating in a vibrant entrepreneurial environment will not only open up opportunities for students' attachment but it would help them learn about entrepreneurship from a practical point. However, the study recognized that most communities surrounding the universities were able to seize businesses opportunities and saw the large population of students as available and ready customers and hence entrepreneurship students learnt the importance of identifying and seizing business opportunities.

The theory of entrepreneurial passion by Cardon (2009) explains how perception on entrepreneurial experiences is recognized over time as the brain responds to the body entrepreneurial stimulations. The theory explains that entrepreneurial passion occurs when an entrepreneur adapts to environmental changes (Damasio, 2001) and this can only happen in an active enabled environmental dynamism.

On entrepreneurial propensity the study conclusively noted that Entrepreneurship education can facilitate the development of self confidence to start a venture among the students. The study found that self efficacy enables students to trust their own abilities to become entrepreneurs. Students start to believe that they can effectively and successfully manage their own business ventures and hence an increase in their entrepreneurial propensity. This study therefore concurs with a study by Peterman and Kennedy (2003) Izquierdo and Buelens, (2011) Drost (2010) who also concluded on the positive relationship between entrepreneurship education and self efficacy.

Students taking a course in entrepreneurship are likely to exhibit a higher level of perceived behaviour. This is in line with a study by Akmaliah (2009). From this study, perceived behavioural control can positively influence behavioural control and consequently entrepreneurial propensity. The underpinning theoretical aspect can therefore be said to indicate that the higher the perceived behavioural control of an individual the higher the entrepreneurial propensity of that individual.

As demonstrated by Shapero model and supported by Ngugi, Gakure, Waithaka & Kiwara (2012) this study supports that entrepreneurship education remains a necessity and plays a major role in inculcating entrepreneurial propensity.



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Entrepreneurship education is an important strategy that can be used to pervert the prevailing high rate of unemployment in Kenya which currently stands at 40%. Entrepreneurship education should therefore be entrenched in our universities in order to create an entrepreneurial culture among the students in Kenyan universities who can later create jobs for themselves and for other people.

#### **5.4 Recommendations**

On teaching methods, this study recommend students inside and outside classroom participation where they can be encouraged to sit together in groups and come up with a business idea that could solve a problem that already exists in the society where they live. . This would help them to understand how to identify business opportunities seize the opportunity and using their entrepreneurial knowledge address and solve that existing problem. Mwalwiba (2010) advocated that using films, videos, role models, guest speakers, business plan creation are all appropriate in inculcating an entrepreneurial propensity, something that this study recommends to be included in the methods used to teach entrepreneurship in Kenyan Universities.

On the other hand, apprenticeship is a concept that students can be exposed to as a method of teaching. Apprenticeship will give students an exposure where they can learn entrepreneurship from a practical point of view. Students can get real life examples from those practicing it and consequently get some experience. Such an exposure is paramount in encouraging students on the practicality of entrepreneurship which students can henceforth apply upon graduation. As a way of enhancing the methods of teaching entrepreneurship in Kenyan Universities, entrepreneurship department can organize for entrepreneurship campaigns.

Different universities can form a joint body and come up with business ideas. The department of business and entrepreneurship can also come up with competition days so that those with most brilliant idea can be rewarded. To make it even more motivating, media coverage may be used so that who never made it for the competition may be encouraged to participate next time. The University can come up with a formal graduation day for those who were able to come up with an idea that addressed a specific societal need and was able to take their product to the market to solve that need hence connecting universities with the outside world.

Still on teaching methods, Universities can encourage facilitation of student driven entrepreneurship clubs. The students' entrepreneurship club can be organised and managed by students who can undertake activities such as entrepreneurship debate, business plan competition, business idea generation competition, networking with local entrepreneurs, business association factory visits as well as setting days for business clinics that can help micro-entrepreneurs in the neighbourhood.

On the second objective which was the educators' network, the study revealed that the students did not benefit much from the educators' network. This was evident by the fact that they did not get assistance for attachments and rarely got guest speakers in their institutions. The starting point for a strong educator's network is facilitating a strong internal team among the educators. The teams can be empowered by educators collaboratively working together and making collaborative decisions about matters concerning their departments. By so doing teams will be accountable for each other and information will criss-cross the departments hence information that is important to the students will be disseminated.



On the other hand the educators' networks can be strengthened if institutions can agree to invest resources to facilitate educators' network. This can be done by setting aside some money where the educators from department of business can visit successful enterprises and hence make a rapport with the company owner so that they can establish on what it would take to send their entrepreneurship students in such an enterprise for attachments.

This study also recommends Inter-University lecturing programs as a mitigation of strengthening the educators' networks. The purpose of an inter-University lecturing programme is to allow free interaction between educators from different institution hence enabling dissemination of elicited and explicit knowledge. Students can also benefit by getting information and knowledge from a wide source of knowledgeable team.

On entrepreneurship curriculum, entrepreneurship curriculum developers, through the ministry of education can introduce entrepreneurship education from primary level. Currently, the ministry of education in collaboration with the Government is introducing new curriculum that will encourage students skills and talents but did not peg in entrepreneurship lesson as a subject from primary school. If this is done, the propensity toward entrepreneurship will be realized by the student early enough so that by the time they are in the University, their career path is already decided.

The curriculum can also incorporate and encourage socialization learning. This is where students can be allowed, as a lesson to go and interact with the community and report on whatever success stories they have collected and also on the challenges that the interviewed community have gone through and how they have been able to succumb.

This study revealed that students were not exposed to creative and innovative competitions, something the study would recommend on its inclusivity in the curriculum. It is in those competition forums where students can pick innovative ideas and share their own which they can launch as business opportunity in future.

The study recommends on the entrepreneurship curriculum, that Kenyan universities borrow from the Universities of developed Countries, where entrepreneurship students are not allowed to graduate until they come up with a new business idea or a new product. This study recommends launching of a new product or coming up with an original business idea as a condition for graduation. If this is done, students will become more innovative and creative, business ideas will be born which eventually can be a big business hence creating employment for themselves and other people.

On entrepreneurial ecosystem, the study recommends that investors be allowed to invest big companies around where the universities are. This is because, on the heart of every entrepreneurial ecosystem is at least one large established business with significant management function, an undertaking of research and development and production activities and is also rich in technology. Such businesses act as talent magnets. Such a company would offer internship for entrepreneurship students where they can get experience. A large ecosystem firm is vital in developing regional ecosystems especially in peripheral regions. Unfortunately, such companies are lacking within the surroundings of Kenyan universities hence a recommendation on this study. Isenberg (2013) stated that one cannot have a flourishing entrepreneurship ecosystem without a large company to cultivate to it either intentionally or otherwise.

Still on entrepreneurial ecosystem, the study recommends inviting individuals who are knowledgeable in matters of technology and engineering. This is because, for any entrepreneurial ecosystem to flourish, it requires a fertile soil.

In this case, a community with a high knowledge base would be significant. With huge Companies existing around the universities, the surrounding area would have people with knowledge base such as scientists and engineers who can act as catalysts for innovation. This can result in scientific discoveries, technological advance and advancement of knowledge that form the basis for creation of new businesses in any region.

### **5.5 Areas of Further Research**

This study only provided a snapshot of students' propensity towards entrepreneurship. It did not determine whether the students who reported that they had a propensity towards entrepreneurship really become entrepreneurs. This can be an area for further research of investigating whether the students actually actualized their entrepreneurial dreams.

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APPENDICES

APPENDIX I: Introduction and Authorization Letters

Date .....

To Executive Director

NAIROBI

Dear Sir/Madam

RE: ACADEMIC RESEARCH DATA: 'ENTREPRENEURSHIP EDUCATION, ENVIRONMENTAL DYNAMICS AND ENTREPRENEURIAL PROPENSITY AMONG UNIVERSITY STUDENTS IN KENYA'

I'm a student at Dedan Kimathi University of Technology pursuing PhD in entrepreneurship. I'm required to undertake a thesis whose title is as indicated above as partial fulfilment for the award of the doctoral degree. I'm kindly requesting for your assistance in making my research a success by granting permission to collect relevant data from your institution. All data collected will be treated with utmost confidentiality and will be used exclusively for the purpose of this academic research.

I am looking forward to your kind consideration.

Yours sincerely,

Tabitha Karanja

Student Reg No: B311-03-0013/2012

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## Authorization Letter



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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2241349, 3310571, 2219420  
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9<sup>th</sup> Floor, Utafi House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref No. **NACOSTI/P/17/49524/18671**

Date: **17<sup>th</sup> August, 2017**

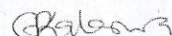
Tabitha Wanjiru Karanja  
Dedan Kimathi University of Technology  
P.O.Box 657-10100  
NYERI.

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Entrepreneurship education, environmental dynamism and entrepreneurial propensity among university students in Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Nyeri County** for the period ending **17<sup>th</sup> August, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Nyeri County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
**GODFREY P. KALERWA MSc., MBA, MKIM**  
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner  
Nyeri County.

The County Director of Education  
Nyeri County.

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## APPENDIX II: Questionnaires

### 1.0 General Information

This questionnaire is meant to investigate entrepreneurship education, entrepreneurial dynamisms and entrepreneurial propensity among entrepreneurship students in Kenyan universities. It will mainly focus on entrepreneurship teaching methods, educators' network, entrepreneurship curriculum, entrepreneurial ecosystems, environmental dynamisms as well as entrepreneurial propensity.

All responses will be treated in strict confidence.

### 1.1 Background Information

1. What is your gender?

(a) Male  (b) Female

2. Are your parents entrepreneurs?

(a). Yes  (b) No

3. Have you ever engaged in any kind of business?

(a). Yes  (b) No

4. How did you end up taking entrepreneurship course?

(a) Personal choice  (b) Parents/ guardian choice

5. From when you enrolled, did you ever feel like changing to another degree programme?

(a). Yes  (b) No

### 1.2 TEACHING METHODS

a) What is your opinion on the methods used to teach entrepreneurship was it theoretical or practical? a) Theoretical  b) Practical

Kindly explain your choice in brief.....

.....

b) After being taught entrepreneurship for the past four years now, can you generate a business idea? If yes, kindly explain and if no please highlight the reason why.....

.....

.....

.....

c) Has the methods used to teach you entrepreneurship made you innovative?

(a). Yes [ ] (b) No [ ]

If yes kindly explain and if no, kindly explain why in brief.....

.....

.....

c) Kindly respond with a / Where appropriate

Statement	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
<b>METHOD OF DELIVERY</b>					
1. The method of delivery has more practical than theoretical					
2. Students were fully engaged in lesson delivery					
3. I suggest an improvement in the method used to teach entrepreneurship					
<b>BUSINESS IDEA GENERATION</b>					
1. I can confidently say I am well prepared to generate a business idea.					
2. I can now identify a business opportunity with ease.					
3. I am now prepared to start a business venture undertaking a course in entrepreneurship					
<b>INNOVATIVENESS</b>					
1. I can innovate or improve an existing product					
2. Entrepreneurship course has placed enough emphasis on innovations.					
3. The way entrepreneurship was taught does not prepare students to become innovative in future					

### 1.3 EDUCATORS NETWORK

a) My lecturers have strong social links (networks) which as a student I have greatly benefited from (a). Yes [ ] (b) No [ ]

If your answer is yes, kindly explain what makes you feel that your lecturers are well connected with the outside world and also if no, kindly explain why you feel that way briefly.....

.....

.....

b) Was it easy or hard for you to get a place for your attachment

a) It was difficult to get  b) It wasn't difficult to get   
 If it was difficult, kindly explain what you think made it difficult and also if not difficult, what made it easy for you. Explain in brief.....

.....

.....

c) My lecturers have helped me to know how to identify business opportunities through the examples they give on the life outside classroom setting (a). Yes  (b) No

Statement	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
<b>SOCIAL LINKS</b>					
1. My lecturers have a very strong network					
2. Their networks have greatly helped the appreciate entrepreneurship					
3. I have been introduced to successful entrepreneurs by my lecturers					
<b>STUDENTS ON ATTACHMENTS</b>					
1. My lecturers helped me access attachment with ease.					
2. A lecturer is very important in helping entrepreneurship get attachment.					
3. My attachment experience made me appreciate entrepreneurship the more.					
<b>OPPORTUNITY RECOGNITION</b>					
1. It is now very easy for me to recognize a business opportunity					
2. I feel fully prepared to start a business upon graduation					
3. I will not start a business but will look for formal employment after graduation					

#### 1.4 ENTREPRENEURSHIP CURRICULUM

a) During your studies, did you learn how to prepare a business plan

(a). Yes  (b) No

If yes do you feel you will operate your business with a business plan and if No do you think you should have learnt how to prepare one? Highlight in brief.....

.....

.....

.....



b) Were you exposed to case studies during your entrepreneurship course?

(a). Yes [ ] (b) No [ ]

If yes, explain how you benefited and if no, do you think you should have been exposed to them explain briefly.....

.....

.....

c) Do you feel you have acquired sufficient entrepreneurship knowledge and skills

(a). Yes [ ] (b) No [ ]

If yes, why do you think so and if no, why? Kindly explain briefly.....

.....

.....

.....

Statement	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
<b>BUSINESS PLAN</b>					
1. I learnt and benefited a lot from learning how to write a business plan.					
2. Business plan is an important tool to ensure business success.					
3. A business can still be very successful even when operated without a business plan.					
<b>CASE STUDIES</b>					
1. I benefited from the case studies we learnt in class.					
2. The case studies highlighted in class are cases I can apply in future.					
3. I didn't learn any case study and I don't feel like I have lost anyway.					
<b>KNOWLEDGE AND SKILLS</b>					
1. I have acquired a lot of entrepreneurship knowledge and skills within the four years of studies.					
2. The knowledge and skills acquired will not enable me start a business in future.					
3. I did not get enough entrepreneurship skills and knowledge within the four years of study					

### 1.5 ENTREPRENEURIAL ECOSYSTEM

a) Have you learnt anything from the businesses surrounding your institution?

(a). Yes [ ] (b) No [ ]

Briefly explain what you learnt from the businesses around your university.....

.....

.....

.....

b) Would you say the Kenyan Government has policies that support entrepreneurship in Kenya?

(a). Yes [ ] (b) No [ ]

Briefly explain why you either chose yes or no.....

.....

.....

.....

c) Would you say the community around your university are enterprising

(a). Yes [ ] (b) No [ ]

Kindly give a reason for your opinion in brief.....

.....

.....

Statement	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
<b>SURROUNDING BUSINESSES</b>					
1. One can learn a lot about entrepreneurship from the businesses surrounding my university.					
2. The community around my institution are mere business persons and not entrepreneurs.					
3. There are very few businesses around my university and does not offer much to learn from about entrepreneurship.					
<b>ENABLING POLICIES</b>					
1. The government of Kenya has policies that facilitate entrepreneurship growth.					
2. The government needs to come up with policies that would encourage entrepreneurship					
3. The government policies do not determine success or failure of a business					

**1.6 ENTREPRENEURSHIP DYNAMISM**

a) Has the growth of Technology in Kenya facilitated entrepreneurship growth?

(a). Yes  (b) No

Explain your opinion in brief.....

.....

.....

b) Do you think the frequency in market changes in Kenya hinders people from engaging in entrepreneurship (a). Yes  (b) No

c) The world has become a Global village hence doing business globally has been made very easy (a) True  (b) False

Kindly explain your choice in brief.....

.....

.....

**1.7 ENTREPRENEURSHIP PROPENSITY**

a) Having taken a degree in entrepreneurship, I now feel prepared and have what it takes to venture in entrepreneurship upon graduation

(a) True  (b) False

Kindly explain in brief what makes you feel prepared to become an entrepreneur.....

.....

.....

b) I have a very strong desire to succeed as an entrepreneur in future

(a). Yes  (b) No

Briefly explain why you feel that way.....

.....

.....

c) Once a person engages in entrepreneurship, She/he has a very strong opportunities of succeeding (a). Yes  (b) No

If yes, kindly explain why and if No, still explain why you think so in brief.....

.....

.....

.....

.....

Statement	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
<b>TECHNOLOGY</b>					
1. Technology growth in Kenya is helping the growth of entrepreneurship.					
2. Though there is growth of technology, many people still don't use it to do					

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business.					
3. One can succeed in entrepreneurship even in the absence of technology					
<b>MARKET CHANGE</b>					
1. The markets in Kenya experiences a lot of changes hence interfering with entrepreneurship growth.					
2. The growth of markets in Kenya is very slow					
3. The state of the market in Kenya has nothing to do with entrepreneurship growth.					
<b>GLOBALIZATION</b>					
1. It is now easy to do business anywhere in the world because of globalization.					
2. Many entrepreneurs in Kenya don't venture in the international market.					
3. It's possible to succeed locally hence one does not have to go global to succeed in business.					

**APPENDIX III: Normality Test for all the Variables**

<b>Second order constructs</b>	<b>First order Constructs</b>	<b>N</b>	<b>Skewness</b>	<b>Kurtosis</b>
		156	1.137	1.356
<b>Teaching Methods</b>		156	1.068	0.735
	(MD)	156	1.292	1.943
	(BIG)	156	1.079	1.053
	(INN)	156	1.204	1.356
<b>Educators Network</b>		156	-0.506	0.237
	(SL)	156	1.029	0.631
	(SON)	156	1.108	1.73
	(OR)	156	1.043	0.889
<b>Entrepreneurship Curriculum</b>		156	1.426	1.664
	(BP)	156	0.794	0.196
	(CS)	156	1.214	1.917
	(KS)	156	0.528	-0.113
<b>Entrepreneurial Ecosystem</b>		156	1.104	1.162
	(Tech)	156	0.555	-0.511
	(MC)	156	0.444	-0.02
		156	-0.084	0.201
<b>Environmental Dynamism</b>		156	0.039	-0.076
	(SB)	156	0.064	-0.457
	(EP)	156	0.367	-0.062
	(CA)	156	1.124	1.395
<b>Entrepreneurship Propensity</b>		156	1.167	1.308
	(S-E)	156	0.967	0.655
	(DI)	156	0.989	0.6
	(FI)	156		

**APPEDIX IV: KMO and Bartlett's Test of Sphericity for the Constructs**

<b>Second order constructs</b>	<b>First order Constructs</b>	<b>KMO</b>	<b>Bartlets</b>	<b>df</b>	<b>sig</b>
<b>Teaching Methods</b>		0.846	747.146	66	0
	(MD)	0.79	347.275	10	0
	(BIG)	0.672	179.235	6	0
	(INN)	0.5	3.926	1	0.048
<b>Educators Network</b>		0.704	394.671	36	0
	(SL)	0.572	23.414	3	0
	(SON)	0.613	182.878	3	0
	(OR)	0.665	83.343	3	0
<b>Entrepreneurship Curriculum</b>		0.742	548.69	36	0
	(BP)	0.521	91.105	3	0
	(CS)	0.5	212.23	3	0
	(KS)	0.609	28.776	3	0
<b>Entrepreneurial Ecosystem</b>		0.773	391.058	55	0
	(Tech)	0.659	67.709	3	0
	(MC)	0.712	152.728	10	0
	(G)	0.558	53.931	3	0
<b>Environmental Dynamism</b>		0.666	226.798	28	0
	(SB)	0.585	67.39	3	0
	(EP)	0.578	20.812	3	0
	(CA)	0.5	70.797	1	0
<b>Entrepreneurship Propensity</b>		0.839	676.526	66	0
	(SE)	0.784	195.4	10	0
	(DI)	0.5	28.506	1	0
	(FI)	0.79	203.415	10	0

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APPENDIX V: Convergent Validity of outer model

Second order constructs	First order Constructs	order	ITEM	Factor loading	Standard Error	T Statistics	P values
Teaching Methods	(MD)		MD1	0.765	0.047	16.163	0.000
			MD2	0.859	0.020	42.525	0.000
			MD3	0.810	0.029	28.125	0.000
			MD4	0.822	0.026	31.236	0.000
			MD5	0.686	0.058	11.845	0.000
	(BIG)		BIG1	0.793	0.036	21.786	0.000
			BIG2	0.846	0.028	30.645	0.000
			BIG3	0.766	0.062	12.307	0.000
			BIG4	0.626	0.076	8.187	0.000
	(INN)		INN1	0.907	0.035	26.299	0.000
			INN2	0.559	0.096	5.813	0.000
Educators Network	(SL)		SL2	0.692	0.153	4.517	0.000
			SL3	0.708	0.169	4.199	0.000
			SL4	0.677	0.113	5.981	0.000
	(SA)		SON5	0.687	0.064	10.743	0.000
			SON6	0.915	0.021	43.365	0.000
			SON7	0.898	0.017	52.806	0.000
	(OR)		OR1	0.781	0.041	18.908	0.000
			OR2	0.848	0.029	29.540	0.000
			OR6	0.743	0.067	11.057	0.000
Entrepreneurship Curriculum	(BP)		BP1	0.906	0.026	34.854	0.000
			BP2	0.390	0.121	3.226	0.002
			BP4	0.868	0.040	21.861	0.000
	(CS)		CS1	0.943	0.017	54.201	0.000
			CS2	0.934	0.021	45.537	0.000
			CS5	0.589	0.103	2.800	0.006
	(KS)		KS1	0.882	0.030	29.710	0.000
			KS2	0.576	0.121	4.768	0.000
			KS6	0.577	0.104	5.535	0.000
	Entrepreneurial Ecosystem	(Tech)		T1	0.779	0.037	21.290
			T2	0.743	0.056	13.391	0.000
			T3	0.803	0.044	18.366	0.000
(MC)			MC1	0.648	0.060	10.838	0.000

		MC2	0.546	0.092	5.952	0.000
		MC3	0.751	0.041	18.457	0.000
		MC4	0.739	0.045	16.413	0.000
	(G)	MC5	0.728	0.056	13.041	0.000
		G2	0.585	0.086	6.812	0.000
		G3	0.773	0.044	17.405	0.000
		G4	0.838	0.028	30.151	0.000
<b>Environmental Dynamism</b>						
	(SB)	SB1	0.828	0.157	5.292	0.000
		SB3	0.607	0.103	5.908	0.000
	(EP)	SB4	0.758	0.141	5.388	0.000
		EP2	0.607	0.197	3.088	0.002
		EP3	0.751	0.116	6.482	0.000
	(CA)	EP4	0.707	0.272	2.595	0.010
		CA1	0.924	0.387	2.386	0.018
		CA2	0.866	0.239	3.622	0.000
<b>Entrepreneurship Propensity</b>						
	(SE)	SE1	0.795	0.040	19.920	0.000
		SE2	0.683	0.078	8.765	0.000
		SE3	0.822	0.035	23.823	0.000
		SE6	0.631	0.066	9.609	0.000
	(DI)	SE7	0.650	0.059	11.115	0.000
		D1	0.899	0.020	44.940	0.000
	(FI)	D2	0.770	0.062	12.492	0.000
		F1	0.826	0.027	30.353	0.000
		F3	0.776	0.038	20.317	0.000
		F4	0.655	0.065	10.028	0.000
		F5	0.732	0.057	12.910	0.000
		F6	0.663	0.054	12.304	0.000



APPENDIX VI: Reliability and average variance extracted (AVE)

Second order constructs	First order Constructs	Cronbach's Alpha	AVE	Composite reliability
<b>Teaching Methods</b>		0.854	0.632	0.889
	(MD)	0.849	0.625	0.892
	(BIG)	0.74	0.580	0.845
	(INN)	0.716	0.568	0.713
<b>Educators Network</b>		0.747	0.527	0.825
	(SL)	0.763	0.679	0.734
	(SA)	0.776	0.705	0.876
	(OR)	0.715	0.627	0.834
<b>Entrepreneurship Curriculum</b>		0.79	0.787	0.832
	(BP)	0.724	0.576	0.786
	(CS)	0.734	0.615	0.802
	(KS)	0.715	0.581	0.727
<b>Entrepreneurial Ecosystem</b>		0.763	0.597	0.828
	(Tech)	0.75	0.601	0.819
	(MC)	0.755	0.598	0.789
	(G)	0.782	0.547	0.780
<b>Environmental Dynamism</b>		0.705	0.513	0.766
	(SB)	0.733	0.543	0.778
	(EP)	0.749	0.577	0.731
	(CA)	0.719	0.801	0.890
<b>Entrepreneurship Propensity</b>		0.856	0.603	0.888
	(SE)	0.761	0.519	0.842
	(DI)	0.718	0.700	0.823
	(FI)	0.774	0.538	0.852