Analysis of entrepreneurship education

ecosystem of three institutions in Kenya

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Abstract

The paper investigates the nature of Kenya's entrepreneurship education ecosystem (EEE) through a comparative analysis of three entrepreneurship education programs and an examination of how the institutions foster a favourable entrepreneurial environment. This study looks at the entrepreneurship education ecosystem through the lens of universities, NGO's and private institutes in Kenya.

A systemic analysis of EEE is provided by utilizing the Actiotope Model as a conceptual framework. The exploratory research adopts a pragmatic mixed-method methodological approach best suited to understand the research problem.

The results reveal that entrepreneurship education at higher education institutions was primarily theoretical and relied on traditional forms of entrepreneurship education. Recurring rigid patterns show minimal personalization of content and learning styles within the University, with more personalization reported in the Mully Model of education and the more specialized entrepreneurship program of the Identity Projects.

The adaptation of the Actiotope Model provided a new and unique approach to analyzing entrepreneurship ecosystems. The person-centred approach of the model provides valuable insights to learners and to entrepreneurship education institutions and researchers.

Enhanced collaboration between the different entrepreneurial education stakeholders could be a more effective short to medium-term solution to addressing the gaps in entrepreneurial education at tertiary institutions.

In the long term, the study recommends adopting practical-based and goal-oriented entrepreneurship teaching models.

Key Words: Entrepreneurship, Education, Ecosystem, Actiotope Model

INTRODUCTION AND THEORETICAL BACKGROUND

Entrepreneurship can balance the inequality in society and create solutions for major issues facing our communities today, especially in developing countries. Kenya is a developing country but has a considerably advanced and sophisticated entrepreneurship environment by the region standards. The advancement of the entrepreneurship landscape in the country coincides with the rise of mobile payment services such as M-Pesa and improved internet connectivity.

The Kenyan economy is one of the most diverse in Sub-Saharan Africa. The primary industries in Kenya include agriculture, manufacturing, tourism, and the service sector, and the primary sources of foreign exchange for the country are agricultural exports, tourism, and diaspora remittances (World Bank 1a, 2021).

Despite the generally positive outlook, entrepreneurs in Kenya still face numerous challenges, such as a lack of quality entrepreneurship education. Kenya's education system creates skills that employers do not value while also raising the aspirations of those who learn them. The current education system results in people having neither employable skills nor skills to start and run a business (Gachugia et al., 2014). The topic of study is particularly relevant now as the Government of Kenya is in the process of implementing a new competency-based education curriculum (Oxford Business Group, 2018).

Over the previous few decades, the concept of entrepreneurship education has evolved into a much broader picture. The field was in the past widely perceived as the study of entrepreneurs and the economics surrounding entrepreneurship. However, entrepreneurship studies now incorporate the research and promotion of entrepreneurial behavioral patterns in businesses and individuals, university-industry-government partnerships, start-ups and scale-ups, and entrepreneurs' aspirations and education orientation (Belitski & Heron, 2017; Bonaccorsi et al., 2013). Recent developments have led to the introduction of the concept of an ecosystem within the entrepreneurship education field.

The term ecosystem is associated initially with topics from the natural sciences. However, the term ecosystem is increasingly used in social sciences to emphasize inter-organizational solid ties (Brush, 2014). What, however, constitutes this ecosystem within entrepreneurship education? The research fills several critical gaps in the Entrepreneurship Education Ecosystem (EEE) literature by examining the individual's environment, which has an educational impact and shapes people's mental and emotional states. More specifically, the study has the following objectives.

Research Objectives

This study attempts to analyze the Kenyan entrepreneurial education ecosystem systematically. It investigates the nature of entrepreneurial education in the country, presents the Actiotope Model as a systemic framework that can be used for analyzing entrepreneurial education ecosystems, and compares the model's five exogenous capitals in three entrepreneurship education programs. This is achieved by answering the following research questions:

1. What is the nature of the three institutions' entrepreneurship education? (RQ1)

Certain factors, such as teaching methodologies, learning content, and educational curriculum, can foster or hinder entrepreneurship skills development. By understanding these factors, the strengths and limitations of the institutions' entrepreneurship education can be estimated.

2. How are the three entrepreneurship education programs creating a systemic environment that supports their learners' entrepreneurial education? (RQ2)

The systemic perspective of the Actiotope Model provides for additional learning and educational resources. The presence of these resources in the programs is assumed to reflect the program's systemic nature.

3. Is there a personalization of content and learning styles in the individual programs? (RQ3)

Every entrepreneur's educational requirement cannot be assumed to be similar. The didactics and pedagogies of the entrepreneurial education programs are used to reflect their degree of personalization.

The three entrepreneurship education programs are comparatively analyzed to recommend innovative approaches to improve Kenya's entrepreneurship education ecosystem.

Entrepreneurship Education in Kenya

Kenya adopted Ashmore's entrepreneurship learning model based on the premise that the skills and attitudes required for effective entrepreneurship growth do not emerge at a single point in time. As a result, EE should be introduced early in a child's education and developed as they grow. (Nafukho & Muyia, 2010). The proposed model has five levels, which would begin at the primary school. Level two is taught at the secondary school to impart management skills through business studies, accounting, and commerce. The learning model incorporates the third level at the tertiary education level to educate students on the skills needed to run a successful business. Levels four and five focused on entrepreneurship venture growth to meet the ongoing need for assistance to get a project off the ground and keep it running successfully (Nafukho & Muyia, 2010).



Figure 1: Entrepreneurship Education in Kenya

Source: Adapted from Valerio et al., 2014

While the Ashmore model adopted by Kenya seems to be progressive and fitting the Kenyan education system, why does the EE in the country still face a myriad of challenges?

One answer would be that the current system does not follow the proposed Ashmore model as proper entrepreneurship education is not introduced until the tertiary level. To help provide further answers to the failure of the Kenyan EE, table 1 summarizes the results and recommendations from Mbila (2021) research to understand the nature of the contents, curriculum, and teaching methodologies of entrepreneurship education in Kenya (Mbila, 2021).

Methodology	The study utilized mixed-method research by reviewing entrepreneurship program course outlines and conducting interviews with entrepreneurship students and teachers.					
Sample Size	The study reviewed the course-outlines of fifteen universities and five mid-level colleges courses. Interviewed ten entrepreneurship teachers, twenty universities, and ten college learners					
	Findings					
Course Outline	 90% of courses are mainly theoretical A minority of courses had practical subjects such as idea generation, development of business plans, market selection, deal structuring etc. Assessment in all the courses was largely theoretical. These included written exams for 2 hours, group and individual presentations, and continuous assessment tests 					
Teachers view	92% of the teachers reported that they were bound to teach within the country and university curriculum, which exhibited limited flexibility. The teachers could not incorporate more practical aspects even if they wanted because they had to stick to the curriculum provided by the university or college.					
Students view	95% of the interviewed students enjoyed the learning concepts and curriculum because it was easy to memorize and pass their exams. The students believed that passing exams was a priority and good grades demonstrated that they are the best fit for employment or entrepreneurship.					
Teaching methodologies	98% of the reviewed courses and interview results showed that traditional lecture methods were the primary teaching method.					

Table 2: Results and Recommendations from Mbila (2021)

Recommendations

- 1. Adoption of learning by doing. Entrepreneurship education should shift to an enterprise methodology that involves the students in the learning process.
- 2. There should be a shift from teacher-centred to learner-oriented education. The teacher should be a facilitator of the learning process.
- 3. Innovative teaching methods should be adopted, including business plan development, gamification, entrepreneur visits, behavioral assessments, simulations, etc.

Source: Own Illustration with concepts adopted from Mbila (2021)

Mbila (2021) study gave an in-depth examination of the nature of entrepreneurship education and teaching in Kenya. This study aims to go a step further and examine the learner's environment beyond just the entrepreneurial learning environment. Therefore, the study utilized the concept of the entrepreneurship education ecosystem. Research on the concept of entrepreneurship education ecosystem is mainly from the developed economies like in Europe (Toutain et al., 2019). Still, few studies exist for Kenya or Africa at large. The study employed the Actiotope Model by Ziegler as a conceptual framework to try and recommend systemic and innovative methodologies on how to improve the entrepreneurship ecosystem in Kenya.

The Actiotope model

The Systemic Perspective

The systemic perspective introduces the idea of additional learning resources. Ziegler and Baker (2013) stated that excellence is a revolutionary process that requires adaptation to even the relatively stable Actiotope systems. This adaptation can only be accomplished by continuously introducing new resources that maintain stability and ensure the Actiotope modifiability. Therefore, two learning resources are defined: "Learning Capital" and "Educational Capital".

"Learning capital is in the person's component of the Actiotope and thus encompasses all endogenous resources that can be used to foster a person's learning progress in a domain. Educational capital is the environmental component of the Actiotope and thus includes all exogenous resources that can be used to foster a person's learning progress in a domain." (Rempel & Mully, 2019)

The research aims to analyze the environment surrounding the individual. The endogenous capitals are within the individual, while the exogenous capitals constitute the individual's environmental aspects. Therefore, the research only looked at the exogenous capitals as the study is more interested in the environment around the individual. More specifically, the research analyses the Kenyan EEE based on the five exogenous capitals of the Actiotope Model.

For this study, the endogenous capitals will not be explored further, while table 2 below, adapted from Rempel and Mully (2019), defines and illustrates the five exogenous educational capitals.

Capital	Definition ¹	Illustration
Economic Educational Capital	Every kind of wealth, possession, money, or value that is invested in the initiation and maintenance of the education and learning process (pg. 27)	A learner's socio-economic background will significantly affect their academic success. In 2018, 29.1% of Kenyans were still living below the poverty line. Such a high poverty level means families do not have sufficient economic resources to spend on their children's education (World Bank 1a, 2021).
Social Educational Capital	Includes all persons and social institutions that can directly or indirectly contribute to the success of the learning and education process (pg. 27)	Mentors, coaches, and role models are essential for entrepreneurs
Cultural Educational Capital	Includes value systems, thinking patterns, models and, the like that can facilitate or hinder the attainment of learning and education goals (pg. 28)	In the researcher's experience, an educated person was more valued than an uneducated person in Kenya. A lot of emphasis is therefore placed on education and learning.
Infrastructural Educational Capital	Relates to materially implemented possibilities for action that permit learning and education to take place (pg. 28)	This may include classrooms, libraries, computer labs, incubation centres etc.
Didactic Educational Capital	The assembled know-how is involved in the design and improvement of educational and learning processes (pg. 29)	"Training based on superior didactic know-how can easily yield improved effects of at least half a standard deviation." (Rempel & Mully, 2019)

Table 3: Definition and Illustration of the five exogenous capitals

Source: Own illustration adapted from Rempel and Mully (2019)

Note: ¹The definitions are quotes from Zeigler and Baker (2013, pg. 27 – 31)

Key Factors of the EEE Framework in Kenya

This research argues the following critical findings of the EEE in Kenya.

- 1. There is a significant gap between what the EEE offers and what students/entrepreneurs or other stakeholders expect. According to the research, there is a considerable gap in the following areas.
 - One is an entrepreneurial mindset. (Parton et al., 2014).

- Two is the significant need for more involvement of the business community within the EEE. (World Bank, 2014, pg. 61).
- Three is the lack of personalized content and training programs. (Parton et al., 2014).
- 2. The EE programs offered are, by nature, brief, one-time programs. There are increasing calls for more systematic initiatives. The research argues that more systemic initiatives with holistic and long-term approaches are needed to address the Kenyan market environment's weaknesses by providing ongoing support.
- 3. According to the general EE studies, initiatives in this domain can help provide income and enhanced business practice adoption. In Kenya, research shows that EE initiatives mainly focus on the contextual challenge of creating jobs and poverty reduction with minimal research to establish its role in promoting self-employment or establishing enterprises (Parton et al., 2014). Thus, most students end up with skills suitable for jobs that do not exist and abilities that cannot start and run a business.
- 4. The EE initiatives in Kenya are decentralized, with little evidence of a regional or national strategy for EE promotion (World Bank 2014, pg. 61). There is an urgent need to promote communication among EE stakeholders (Parton et al., 2014). The decentralized nature of the EEE in Kenya presents a challenge in analyzing the entrepreneurship education ecosystem.

RESEARCH METHODOLOGY

The study is exploratory mixed-method research as quantitative and qualitative methods are used. The philosophical worldview adopted by the study is pragmatic. This worldview emphasizes the research problem and approaches best suited to understand the problem (Cherryholmes, 1992). The study conducted a multi-level analysis that followed a convergent parallel design utilizing mixed-method research, as shown in figure 2.



Figure 2: Research design (Source: Own Illustration)

The research connects the findings as per the five exogenous capitals of the Actiotope Model to address this concern. Therefore, the interview questions and the questionnaire questions are built around the exogeneous capitals to ensure consistency and a more straightforward analysis of the findings. The study looks at the research design in the following section.

The following sections discuss the quantitative and qualitative parts, highlighting the data collection procedure, data collection instruments used, sample size, and the research validity of the data collection instruments.

Quantitative Research

The study obtained quantitative data using anonymous questionnaires adapted from the Questionnaire of Educational and Learning Capital (QELC). QELC has been tested and re-tested on different continents, with results showing construct and concurrent validity. Vladut et al. (2013) administered the questionnaire to 503 participants across China, Germany, and Turkey (Vladut et al., 2013). The validity of the questionnaire was confirmed in another study conducted on 248 post-secondary students from Germany. The findings revealed that QELC had good psychometric properties and factorial and concurrent validity (Vladut et al., 2015). A similar study in Israel affirmed the validity and reliability of measuring the Actiotope Model capitals using QELC (Paz-Baruch, 2015). Rempel (2019) also used a similar QELC questionnaire adapted to entrepreneurial education in his study in Kenya (Rempel & Mully, 2019).

The anonymous questionnaire was created using the software Unipark.de. The questionnaire was structured into six sections plus a confidentiality consent section at the beginning of the form. The 1st section collected general characteristic information from the respondents. These included age, gender, level of education, type of high school attended, family residence (urban vs rural), family monthly income level, and years of entrepreneurship experience. Sections 2 – 6 contained questions on the five exogenous capitals of the Actiotope Model. The questions were rated on a 6 -point Likert scale where one means 'Not true at all' and six means 'Fully true'.

The major players offering entrepreneurship education in the Kenyan ecosystem include public and private universities, NGO's, certificate programs, and local and international entrepreneurship organizations. One institution from three major categories was selected using the non-random purposive sampling technique. Furthermore, time constraints, the availability of direct contacts, and the organizations' willingness to participate further impacted the sample selection.

Therefore, three institutions were selected: Identity Project (IP), Maasai Mara University (MMU), and Mully Children's Family (MCF). The anonymous questionnaire was then administered for data collection to the target respondents between June and July 2021. The target respondents should have completed a program, semester, or module each organisation offers. This was to ensure that the participants experienced the programs' entrepreneurship education environment.

Number of Respondents per Institution

The study obtained 108 total responses from the three institutions. Incomplete responses were removed, and the data was cleaned before analysis. The research only conducted a descriptive analysis using mean and standard deviation to achieve the research objectives and answer the research questions. The table below summarizes the sample characteristics.

		Total	IP	MMU	MCF
Gender	Male:	49 (45%)	10 (28%)	14 (41%)	25 (66%)
	Female:	59 (55%)	26 (72%)	20 (59%)	13 (34%)
Age	Below 30:	85 (79%)	16 (44%)	33 (97%)	36 (95%)
	31-40:	7 (6%)	6 (17%)	1 (3%)	0
	Above 41:	16 (15%)	14 (39%)	0	2 (5%)
Level of education	Secondary:	2 (1%)	1 (3%)	1 (3%)	0
	Diploma/Certificate:	51 (47%)	12 (33%)	2 (6%)	37 (97%)
	Bachelor's degree:	47 (45%)	18 (50%)	29 (85%)	0
	Post-graduate:	8 (7%)	5 (14%)	2 (6%)	1 (3%)
Family monthly income	Below 23,670:	54 (50%)	10 (28%)	13 (38%)	31 (82%)
(Kenya shilling)	23,671 – 71,835:	29 (27%)	12 (33%)	11 (32%)	6 (15%)
	71,835 – 120,000:	10 (9%)	5 (14%)	4 (12%)	1 (3%)
	Above 120,001:	15 (14%)	9 (25%)	6 (18%)	0
Place of family residence	Rural:	63 (58%)	11 (31%)	19 (56%)	33 (87%)
	Urban:	45 (42%)	25 (69%)	15 (34%)	5 (13%)
Entrepreneurship	None:	14 (13%)	2 (6%)	8 (24%)	4 (10%)
experience	Less than a year:	37 (34%)	9 (25%)	11 (32%)	17 (45%)
	1 – 3 years:	43 (40%)	15 (42%)	14 (41%)	14 (37%)
	3 – 5 years:	10 (9%)	8 (21%)	1 (3%)	1 (3%)
	5 – 10 years:	4 (4%)	2 (6%)	0	2 (5%)

Table 4: Research sa	mple characteristics
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Qualitative Research

The research was interested in gaining new insights from the program directors on the environment around the entrepreneurs or participants within their programs. The term program director was used to describe the persons

administratively responsible for the entrepreneurship education programs. The persons may hold different titles in their respective institutions but are categorized as program directors for study purposes. The researcher's supervisor provided the contacts to the program directors.

The first interview partner was Pascal Strauss from Identity Projects. Mr. Strauss was one of the Identity Projects' initiators and co-founders and served as the principal trainer. The second interview partner was Dr George K. Rukaria, the Maasai Mara University's School of Business and Economics dean. Lastly, Mr. Vincent Opiyo was the program manager at Mully Children's Family, where he oversaw all the programs within the institution.

The study employed qualitative research in the form of semi-structured interviews. The interviews were semistructured to ensure all the interviews were conducted in an orderly manner while at the same time giving space to the interviewees to address some questions in more detail. The directors of the three programs were interviewed. The interviewees possessed significant specialized expertise and were deemed specialists for this study task due to their project position, professional certifications, and many years of experience. The interview method is, therefore, expert interviews.

After transcription, the analysis was conducted using MAXQDA and the evaluation procedure followed the qualitative analysis procedure described by Kuckartz (2019). First, the text was deductively assigned to categories based on the interview guideline. The main categories were the five exogenous capitals. Second, the main category text passages were compiled, and subcategories were constructed from the material. The interview analysis then focused on the five exogenous capitals per the interview guideline (Kuckartz, 2019).

The researcher researched the research respondent's data with utmost care and ethical consideration. The interview partners agreed to share their data and presented it in the following chapter by signing the data consent form. Therefore, the research shows the findings using the researcher's names, positions, and organization names.

RESULTS, ANALYSIS, AND DISCUSSION

Quantitative Results and Analysis

Capital	Total		IP		MMU		MCF	
	Mean	SD	Μ	SD	М	SD	М	SD
Economic	3.2667	1.090305	2.833	0.80782	3.6588	1.02754	3.3263	1.25239
Cultural	4.4333	0.84433	4.5444	1.05896	4.5118	0.83730	4.2579	0.57122
Social	4.0509	0.8000	4.1611	0.81392	3.5176	1.03411	4.4237	0.54855

Table 4: Summary of the means and standard deviations of the five exogenous capitals

Infrastructural	4.2389	0.94817	4.0778	1.00885	4.1882	1.00416	4.4368	0.81851
Didactic	4.5352	0.990	4.6722	0.79299	4.1059	1.324124	4.7895	0.67535

Source: Own illustration (M=mean & SD=standard deviation)

The findings show didactic capital had the highest total mean, followed by cultural, infrastructural, social, and economic, with a substantially lower mean than the four other capitals. The result on the economic capital is not very surprising considering the general economic state of Kenya, and 50% of the respondents have family monthly income levels of less than 183 Euros per month:

The Economic capital findings show the means of IP ranked last in all five questions. MMU had the highest mean in questions E1, E3, and E4. However, the difference in the means of MMU and MCF in question E1 was minimal. On the other hand, MCF had the highest means in questions E2 and E5. The results show that all respondents' families or guardians tend to spend higher in education than entrepreneurship. Question E2 had the lowest means, and question E3 had the highest means across three institutions.

Interestingly, table 3 showed that most MCF respondents came from families with the lowest income levels. At the same time, IP had most respondents from higher income levels. However, the findings on the economic capital show contradictory results as one might expect the higher the monthly income, the higher the economic capital. Still, IP has a lower mean on all five questions than MCF.

The results show that the cultural capital had higher means than economic capital. MCF had the least averages in all the five questions, while IP had the highest means in questions C3, C4, and C5. MCF had the lowest standard deviations compared to IP and MMU. The study argues that most MCF respondents live in a similar and controlled environment, hence low SD in the cultural capital.

The averages of the social capital are observed to be lower than the cultural capital but higher than the economic capital. MCF had the highest averages followed by IP, and MMU had the least means across all five questions. It is observed that all the means of MMU are below 4.0 while all from IP and MCF are above 4.0. Questions S1 and S2 relating to business ideas had the lowest averages from all the respondents. Again, it is observed that respondents tend to receive more support about entrepreneurial education or learning than starting a business. This observation concurs with the analysis of the economic capital.

The variation of the infrastructural capital means between the three institutions was minimal, with MCF having the highest means in all the questions. The most significant variation in means is observed in question I2, where IP respondents have the least favorable studying conditions at school. It is important to note that IP does not have any physical infrastructure or school-like structures, and the program is done virtually. Question I5 had the lowest averages across the three programs.

The findings show that IP and MCF have higher averages than MMU across all the questions of the didactic capital. MCF has higher means than IP in all questions except D3. Interestingly, the means of MCF are the highest, and the SD is the lowest, signifying minimal variation between the respondents' answers to the questions. MMU reported the lowest mean in question D2 about entrepreneurship and business training.

Qualitative Results and Analysis

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Institution	Description
IP	The Identity Projects is a non-governmental not for profit entrepreneurship education and empowerment organization present in various countries, including Kenya.
MMU	MMU is a Kenyan state-accredited public university offering diploma, certificate, bachelor, master, and PhD courses.
MCF	MCF started as a humanitarian organization to rescue and give a home to homeless children in Kenya. The charity organization rescues, rehabilitates, educates, and trains underprivileged children and young people. The primary purpose is to give the children and young people an opportunity to become self- sufficient and live regular lives after leaving the institution.

The results showed a diverse set of organizations aiming to provide entrepreneurship education to Kenyans. MMU and MCF are local organizations only present in Kenya, while IP operates beyond the Kenyan ecosystem.

The Nature of the Entrepreneurship Program

The results showed diverse approaches to entrepreneurship programs. Identity Projects was the shortest, but the duration cannot be precisely determined because, as Mr. Strauss mentioned, the program had three parts (incubator, accelerator, and connector). The two months only referred to the incubator. Therefore, the results presented in this study only reflects one part of the entrepreneurship program.

The entrepreneurship degree program at MMU lasted for four academic years, but students from other bachelor programs must study a mandatory entrepreneurship course for 15 weeks in their third academic year. MCF provided a rather personalized program depending on the student's situation at the time of rescue. Therefore, a student at MCF may take anywhere from 18 to 42 months to complete the program, including coaching and mentorship.

The research also noted differences in the target group, with each program targeting a specific target group. However, a student from MMU and MCF may also be a participant of the IP as the target group of IP overlaps with the target group characteristics of MMU and MCF. The study cannot accurately make such an inference on the participants of MMU and MCF. Still, it can be the case that a student from MCF gets sponsorship to pursue a degree at MMU as MCF does not provide university education.

Economic Education Capital

Financial and Time Costs

The interviewees provided information on the monetary and temporal costs invested by the participants in the program. Time investment per week refers to the hours per week required to fulfil the program objectives, and the cost of the program is any direct costs incurred by the student to be part of the entrepreneurship program.

	Time investment per week	Cost of Program
IP	2 hours teaching & 1-hour coaching	No cost incurred by the participant
MMU	3 hours per week in each of the seven courses in their respective study programs	 Tuition fees: Ksh 26,000 and 30,000 (200-230 Euros) for government-sponsored students per semester Ksh 60,000 per semester for self-sponsored students Other costs include administrative, computer lab fees, and the cost of academic field trips.
MCF	Students devoted three hours per week to each subject in their course. A student typically uses 18 hours a week	The program was free to the students who obtained full scholarships worth Ksh 45,000 (360 Euros) per year from MCF

Table 6: The monetary	and time	costs of the	programs
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Financial Support and Incentives

Table 7: The types of financial support and incentives offered by the programs

IP	MMU	MCF
• Personalized support, i.e.,	Partial Scholarships	Full Scholarships
depending on student	External support	Pocket money
needs	Work-study program	• Start-up capital
Connection to funding	• Informal sources, e.g., university	Work-study program
opportunities	staff philanthropy efforts	Financial training
		Partnerships

Cultural Education Capital

The value systems and thinking patterns facilitate the attainment of a program learning goals. The study divided this capital into two sub-sections for results comparison and analysis.

Program Values

The research investigated the fundamental values of the respective entrepreneurship programs, and the findings are summarized in the table below

Institution	IP	ММО	МСҒ
Values	• Learn	Honesty	Visionary
	Grow	Hard work	Accountability
	• Lead	Accountability	Honesty
			• Bravery

Table 8: The	program	value	systems
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Thinking Patterns

The interviewees provided more information on the thought process and models behind the development of the entrepreneurship programs. Mr. Strauss mentioned that the program used the growth mindset as a base model to attain the program goals and support an open entrepreneurial mindset. The project works on changing the attitude of "not being able to do anything about one's circumstances" by creating a shift in mindset from identifying problems to finding solutions.

Mr. Opiyo stated that the education model at MCF integrated entrepreneurship at all levels to create an entrepreneurial culture. The education curriculum prioritized business management and entrepreneurship studies to prepare the students for entrepreneurship from an early age (Opiyo, 2021, pg. 1, lines 46 ff). Emphasis was placed on developing business plans and then presenting and defending the business plan in front of a panel. Every department at MCF, including technical departments, had a detailed business planning program. Mr. Opiyo referred to the competitive nature of the business plan preparation and submission, which prepared students for the business environment.

Dr Rukaria emphasized the importance of entrepreneurship education in the Kenyan education ecosystem, noting that only a few institutions of higher learning had specialized entrepreneurship programs. He envisioned a future in which every program at the higher education level, regardless of specialization, would include four or five entrepreneurship-related subjects. For example, Maasai Mara University's computer science, botany, and zoology degrees should consist of more than the one entrepreneurship course offered because that might be insufficient. He believed that by doing so, the education ecosystem could lay a stronger entrepreneurship foundation for students, allowing them to understand better the role of entrepreneurship and self-employment as a career path.

Social Education Capital

Qualification and experience of the Trainers

Table 9: Trainer's background

IP	Entrepreneurs, Professors, and Specialists in training".	
	IP does not have any full-time staff, and all the facilitators (coaches and trainers) volunteer part-time	
MMU	The university had lecturers with a minimum qualification of a master's degree. Many lecturers had	
	doctorate degrees, and others were professors.	
	Dr Rukaria stated that most teaching staff had a professional connection to the industry.	
MCF	Certified vocational trainers, college tutors, expert coaches, and practitioners provided academic	
	support. The vocational trainers are certified by the National Industrial Training Authority (NITA) and	
	Technical and Vocational Education Training (TVET). Some college tutors are the Teacher Service	
	Commission (TSC) members, while others are certified tutors through the Kenya Technical Training	
	Institutes.	

Number of trainers & Trainer to Participant ratio

Table 5: The number of trainers & trainer to participant ratio

IP	The program in Kenya had between 10 to 15 facilitators for around 40 participants. The trainer to participant ratio is about 1:3
MMU	The school of business and economics has between 20 and 25 full-time lecturers and around 30 part- time lecturers. The trainer to participant ratio is about 1:70
MCF	Mr. Opiyo stated that there existed a shortage of qualified instructors in Kenya. Therefore, MCF employed part-time instructors to supplement the full-time instructors. The trainer to participant ratio is about 1:10

Support Networks

Vladur et al. (2013) stated that social institutions contribute to the success of learning and educational processes (Vladut et al., 2013). The study compared and presented the various forms of social networks established by the institutions to facilitate learning.

	IP	MCF	MMU
٠	Peer to peer	Alumni group	Alumni networks
	coaching groups	• Peer-peer coaching and counselling	International Conferences
•	Feedback model	Mentorship and Leadership	Mentorship
		Community Linkages	Community Linkages

Table 11: Results on the program support networks

According to the study, MCF support networks are more extensive and well-established. For example, MCF's mentorship program is structured and already in place, while MMU was still working on a policy. MMU and MCF had alumni groups and community linkages but with different descriptions. MMU's alumni group, for example, was described as a networking platform, whereas MCF's alumni group provided direct opportunities to students, role models, and alumni events. Dr Rukaria reported that MMU students connected to the community through community service, whereas MCF used the community connection to create opportunities and markets for their students produce.

Additionally, all three organizations provided external support networks and partnerships through external trainers and partnerships with other organizations.

Infrastructural Education Capital

Physical Infrastructure

Table 12: Results on the physical infrastructure within the institutions

IP	The institution did not possess any physical infrastructure as the program was held virtually via Zoom. However, the institution collaborated with universities to use their physical facilities	
MMU	lecture halls and classrooms with amenities such as whiteboards and public address systems.	
	The students attended virtual classes where the rooms were insufficient	
	Only the postgraduate lecture rooms had permanent screens and projectors, which all students could use when needed	
	The university's primary source of electricity was the national grid, but it had a backup generator in case of a power outage.	
	MMU had numerous internet hotspots throughout the university, resulting in adequate and robust internet connectivity.	
	The university had additional provisions for structures to support student entrepreneurs.	
	- Student center where students could rent stores and set up businesses while studying.	

	- Hospitality lab. The students could use the lab to prepare meals and sell them to other students	
	and staff members.	
MCF	MCF offered primary, secondary, vocational, and college educational facilities.	
	The schools had lecture halls, workshops, laboratories, and field demonstration units	
	Besides the physical infrastructure, the institution had projects where the students gained practical experience. Mr. Opiyo gave a few examples.	
	- One was the ongoing construction projects within MCF, where students from the welding, metalwork, electrical installation, and masonry department could book appointments to have practical work	
	- Another example was the MCF farms, which set aside land for students to use. Students interested in agriculture and farming used these lots to grow crops or raise animals to gain experience and sell the produce	
	MCF also provided accommodation facilities for visitors	
	The institution had a stable supply of electricity from the primary grid and a backup generator in case of loss of power. MCF provided the necessary technological support such as computers and internet access to the students.	
	The results showed MCF facilities and education was so good that other institutions in the region went for benchmarking.	

Infrastructural Limitations

The last section of the infrastructural capital looked at the reported challenges to the institution's infrastructure. The study summarized the difficulties reported in Table 13.

IP	MMU	MCF
Lack of internet access and connectivity.	Lack of a proper incubation center	Limited computers
Insufficient access to laptops/computers	Unstable internet access and power outages	Unstable internet connection

Table 13: Results on infrastructural limitations

The findings showed inadequate internet access as a common challenge between all the three institutions. IP and MCF reported limited computers for students to use. Dr Rukaria spoke about the importance of incubation centers at universities and how the lack of one at MMU hindered effective entrepreneurship education.

Didactic Education Capital

The program curriculum

Table 6: A description of the program curriculum

Identity Projects (IP)

The program structure consisted of two hours of teaching and one-hour coaching sessions every week. Mr Strauss explained that by only teaching a person, you improved productivity by 22%. When you combine teaching with coaching on the same subject over time, you increase productivity to 88%

Mr Strauss stated that the curriculum was designed based on scientific insights on learning more effectively. For example, the program gave the instructional segments 20 to 25 minutes but never more than 25 minutes. The justification was that the human brain is better at remembering the beginning and end of a lecture. Therefore, the shorter the teachings, the more the beginnings and endings hence better information absorption and retention. The type of teaching was known as the Pomodoro. At the end of every 20-25 minutes teaching cycle, the participants were put into smaller groups to share and discuss the teaching.

The environment created by the program triggered creative thought processes, critical thinking, and decision making between the participants. The teaching sessions covered personal well-being, healthy habits, behavioural assessments, business models, value innovation, customer identification, and team and personal leadership. In contrast, the program did not cover marketing, human resources, and sales skills in so much detail (Strauss, 2021, pg. 6, line 231 ff).

The learning content links theoretical concepts to real-world experiences by answering the participant questions using practical experiences. (Strauss, 2021, pg. 9, line 358 ff).

Maasai Mara University (MMU)

The entrepreneurship program had eight semesters and seven courses per semester. The students would typically take four academic years to complete the degree program.

The university offered specific courses in the curriculum to help the students develop an entrepreneurial mindset. One example was critical thinking which was a one-semester university-wide course. Aside from that, the education curriculum included tasks that enhanced the students' critical thinking, problem-solving, decision-making, and creative thought processes. A student, for example, could improve their decision-making skills by completing an assignment in which they solved an accounting problem and made recommendations

The curriculum significantly included general business skills such as customer identification, sales, human resource, production, and service delivery. The program offered foundation and advanced courses in management, while marketing had two separate subjects. The general business skills were further emphasized when the students prepared their business

plans. The program also included soft skills such as communication, negotiation, leadership, presentation, and human relations

Mully Children's Family (MCF)

MCF is a Technical and Vocational Education Training (TVET) institute, and the curriculum was developed and approved by the Kenya National Examination Council (KNEC) and the National Industrial Training Authority (NITA).

Mr Opiyo described the general design of the learning environment at MCF as a hybrid system that he defined as the integration of theory and practical work. The institution established various entrepreneurial departments to generate income and provide students with practical skills and experience. Therefore, MCF designed the training programs around the entrepreneurial ventures to ensure the students can obtain valuable exposure to improve their entrepreneurial skills continuously.

The business plan preparation process is crucial for the Mully model of education. Mr. Opiyo stated that the students undergo training from the beginning of the program to prepare a business plan and defend them before a panel. Students consult with entrepreneurs in their field during the business plan preparation process who provide advice to ensure that their business plans develop into a business. Mr. Opiyo shared his experience of how impressed he was to see students at the certificate, craft, or diploma level defend their business plans in a way that demonstrated their ability to do business. Furthermore, MCF used the business plan defense process to assess students' creativity and business skills.

The findings showed variations to the curriculum development process and contents of the respective entrepreneurship programs. IP leveraged scientific principles and the Pomodoro technique and used short teaching and coaching sessions to structure their program. MMU's program was a university degree focused on general business management skills, which took four academic years. MCF structured its program around the institution's goal of income generation and financial sustainability. MCF emphasized the business plan as a vital component of its curriculum.

Only MCF reported curriculum regulation from governmental organizations such as NITA and KNEC. IP's curriculum included business topics such as business models and value innovation, but an equal emphasis was on empowering the individual.

Methods of curriculum delivery

Following an examination of the curriculum's design, it is critical to comprehend how the curriculum was delivered to the intended audience. The delivery methods play a vital role in the didactics of any education program. The study summarized the findings in Figure 3.



Figure 2: An illustration of the methods of curriculum delivery

The figure shows similarities in forms of curriculum delivery between the entrepreneurship programs. All programs used class lectures, experimentation or practical learning, and group work. Only IP followed every teaching with a coaching session. However, one could argue that one-on-one instruction by MCF is a form of coaching.

Discussion

This section attempts to answer the three research questions by discussing the research findings and comparing them to the literature. The questionnaire and interview results are synthesized to infer meaning. The research questions are listed as sub-headings.

RQ1 - What is the nature of the three institutions' entrepreneurship education?

The first step in answering this question is to give an **overview** of the entrepreneurship education institutions. IP is an international NGO with a specific goal of empowering entrepreneurs. The entrepreneurship program targets university students and young entrepreneurs. The entrepreneurship program was started recently, and the findings discussed are only of the incubator part of the entrepreneurship program. It would be interesting to conduct follow-up research once the connector and accelerator phases have been completed. MMU is a state-accredited public university offering various diploma, bachelor, and postgraduate courses. For this research, the focus was on the bachelor level of education. MCF is a local humanitarian NGO with institutions offering different levels of education, such as primary, secondary, and tertiary levels. MCF offers care, rehabilitation, and education to kids from impoverished backgrounds, homeless, child mums etc. The study focused on MCF's Technical and Vocational

Education Training (TVET) institute offering diploma, certificate, and craft courses. The programs from MCF and IP are free, while students at MMU must pay a tuition fee of at least 200 Euros per semester.

The findings on the **educational curriculum** show that MMU was relying on university guidelines, and the courses were structured into four academic years with two semesters per year. Each semester had 13 weeks for teaching and two weeks for examinations. The findings are similar to Mbila (2021) research that found written examination as the primary assessment form. The tests were also largely theoretical and easy for the learner to quickly memorize. This type of education is what was described by Mbila (2021) as "education about entrepreneurship" (Mbila, 2021).

MCF's curriculum was based on the government stipulated regulations for TVET institutions. However, MCF went a step further to complement the curriculum with well-structured programs such as practical work, work-study programs etc. The program was designed so that by the time the students graduate, they have prepared business plans and are offered support in starting their businesses. MCF's approach to entrepreneurial education is an example of "education for entrepreneurship". The study finds MCF's approach to be holistic and practical. Rempel and Mully (2019) reported that the Mully Model of entrepreneurship education created over 6400 enterprises and almost 18000 jobs (Rempel & Mully, 2019).

While the study found the Mully Model of entrepreneurship education most effective, its replicability in other institutions or environments cannot be ascertained. MCF is a controlled environment where the learners live, study, and work. The institution is the only place most learners consider as their home. On the other hand, the learners of the other institutions such as MMU and IP have more diverse backgrounds and have a home outside the institutions.

Lastly, IP's curriculum was innovative and displayed flexibility to adapt to the target group needs. The curriculum was co-created with the target group before the program's start. The co-creation concept shifts the focus of the education program from the teacher to the learner. This corresponds to the innovative pedagogy model of entrepreneurship education described by Mbila (2021). The incubator part of the program takes two months to complete, and at the end, all the participants submit a business or business idea pitch to a juror of experts. The study finds the business pitch to be a more effective assessment method than the written examinations.

The **learning content** between the three programs also varied, with MMU focusing more on general business skills, MCF on the business plan development, and IP on entrepreneurship leadership and business idea pitches. IP also included behavioral assessment and business models, which Mbila (2021) recommended. IP displayed the most flexibility as the learning contents were co-created with the participants before the start of the program. The researcher argues that the co-creation of learning contents effectively addresses the learner's needs but might be difficult and costly to be implemented on a larger scale, such as the universities.

The **teaching methodologies** were slightly different, with MMU reporting majority of their curriculum was taught through class lectures, thus heavily theoretical. IP utilized the Pomodoro principle to teach its contents and combining it with coaching sessions. MCF, on the other hand, was primarily practical training. IP's teaching

methodology is again fascinating for two reasons. One is the short cycles of teachings according to the Pomodoro Principle, and two is the follow-up coaching after every teaching session. Both approaches could be applied to tertiary institutions in Kenya.

The findings show that the nature of MMU entrepreneurship education was mostly traditional compared to IP and MCF. Therefore, it is no surprise MCF, and IP reported higher means in the didactic education capital than MMU. The findings concur with Mbila (2021), whose study showed that entrepreneurship education curriculum in tertiary institutions lacked flexibility and followed the traditional and less effective teaching methods (Mbila, 2021).

The study believes entrepreneurship education delivered by MCF is an effective way of teaching entrepreneurship in vocational training institutions. The argument is supported by Rempel and Mully (2019) findings, whose study showed that the Mully Model of entrepreneurship education effectively imparts skills necessary for successful enterprise and employment creation (Rempel & Mully, 2019).

The researcher also argues IP's nature of entrepreneurial education is an effective but complimentary way of teaching entrepreneurship education. It is complimentary as it can be easily incorporated into Kenya's existing formal entrepreneurship education models. This is facilitated by the virtual nature of the program and the shorter times required to complete the program. Previous research shows that incorporating innovative methodologies to institutions of higher learning in Kenya can be very expensive and may not fit into the rigid education curricula (Mbila, 2021). Therefore, the study recommends that institutions of higher learning can partner with IP and have IP's entrepreneurial program parallel to its entrepreneurship programs. For example, MMU and MCF can have Identity Projects as short-term courses done within entrepreneurship clubs or societies in their institutions. This arrangement will also ensure all students, regardless of the study program, have an opportunity to gain entrepreneurial skills besides their degree program.

RQ2 - How are the three entrepreneurship education programs creating a systemic environment that supports their learners' entrepreneurial education?

Ziegler and Baker (2013) stated that the Actiotope is usually stable but requires additional resources to ensure the continuous development of excellence (Ziegler et al., 2013). The study looks at the presence of the Actiotope Model's five exogenous capitals to answer RQ2,

Starting with IP, the program's base model was the growth mindset. The growth mindset challenges individuals to adopt an open attitude to learn and grow regardless of personal or entrepreneurial success. Ziegler and Baker (2013) stated that "at some point, most people will cease with learning and seldom fully challenge all the individual development possibilities. It is at such points that intervention from educators could assist." While the argument by Ziegler and Baker seems reasonable, it assumes that individuals do not possess a growth mindset as proposed by IP, and they need an external influence to achieve their learning potential. The researcher challenges the assertion by Ziegler and Baker by proposing that entrepreneurs should be taught how to develop and sustain a growth mindset to attain their potential development possibilities. Nevertheless, educators, mentors, or coaches still play an essential role in the entrepreneurial development of the individual.

The three value systems of IP are, learn, grow, and lead. Mr Strauss stated the values were sequential, thus creating a systemic nature to the value system. The findings also showed that IP had the highest cultural capital mean among the three organizations. The study argues that the sequential value system contributed to IP having the highest cultural capital mean. However, the study examined only one of three parts of IP creates a limitation as the development of entrepreneurial excellence needs to be observed over an extended period. Therefore, the two-month incubator program could be insufficient to examine the individual learning pathways. Further research should follow up on the participants after going through the other phases.

The questionnaire findings showed that MCF had the highest mean in social, infrastructural, and didactic exogenous capitals. As already explained in RQ1, MCF had the most effective form of entrepreneurial teaching and thus the highest didactic capital mean. The interview findings can explain the high social capital mean. The interview findings showed that MCF had the most well-established social networks. These networks can be compared to Toutain et al. (2019) connections. Toutain described the connections as an essential component of an effective EEE (Toutain et al., 2019).

MMU had the highest economic capital mean, but MCF had more comprehensive financial support and incentives. The financial support and incentives could explain why MCF had a higher average economic capital than IP, yet IP had more respondents with higher income levels.

All the institutions had the presence of exogenous capitals but to varying intensities. The exogenous capitals are not solely responsible for developing entrepreneurial excellence, but they create an enabling environment for an individual to thrive. The study concludes that MCF has the most systemic environment that supported the learner's entrepreneurial education. This assertion is supported by the findings of Rempel and Mully (2019). On the other hand, MMU continues to foster an environment that lacks innovation by Mbila 2020.

The researcher could not correctly assess the IP entrepreneurial environment as the research only analyzed one of three program parts. However, the thesis asserts that IP presented the most innovative way to teaching entrepreneurship education. The program utilized online tools and leveraged collaborations to deliver the program at no cost for the participant. Also, the program ensured knowledge transfer across borders.

RQ3 - Is there a personalization of content and learning styles in the individual programs?

The findings observe personalization of contents and learning styles in IP and MCF but lacking in MMU. Starting with IP, personalization is achieved through co-creation of the program, categorization of the program participants, behavioral assessment test, preparation of individual business models and individual project pitch. At MCF, personalization is achieved through preparing the business plan and considering the student's aspirations upon graduation. The researcher argues that the personalized nature of IP and MCF programs also contributed to the higher didactic capital means compared to MMU.

However, Dr Rukaria from MMU stated an interesting and important factor to consider when looking at the personalization of entrepreneurial education content at universities in Kenya. In his opinion, he mentioned that the university entrepreneurship program should be differentiated from start-up programs. The university programs are

in nature generic and follow the set university or government guidelines. The argument concurs with Mbila (2021) findings that 92% of teachers reported they could not incorporate additional aspects to the curriculum as the university instructed them on what to teach. Therefore, the lack of personalization and rigidity is common at MMU and across other universities in Kenya.

CONCLUSION AND RECOMMENDATIONS

The study attempted to conduct a systemic analysis of the Kenyan entrepreneurship education ecosystem by comparing three entrepreneurial education programs. Since its formal introduction in the 1990s, the findings show that entrepreneurship education in the country has neither evolved enough to meet the learner's needs nor transition from the traditional forms of entrepreneurship teaching. While there is an applaudable effort from the government and other stakeholders to increase the number of entrepreneurship programs being offered in tertiary education institutions, the main challenge lies with the curriculum and teaching methodologies of the programs. The curriculum and teaching methodologies exhibit rigidity and fail to impart the skills necessary to run and maintain enterprises successfully.

The Mully Children's Family model of entrepreneurship education stood out as a systemic and innovative way of approaching entrepreneurship education. Entrepreneurship education at MCF is intentionally geared towards producing graduates who set up their own enterprises. MCF has been so successful over the past years that other institutions in the region use it as a benchmark. The study asserts that such practical entrepreneurship teaching can be one of the solutions to the country's growing challenges of unemployment and poverty.

The study acknowledges the difficulty in implementing all the needed changes to the entrepreneurship education ecosystem. For example, MCF has created a systemic environment for the learners through the founder and team's sustained and consistent effort for more than 30 years. Such changes on the country level would even be more complicated and require much more time. While previous studies propose radical changes to the curriculum or redesigning the entrepreneurship education system, this study finds such recommendations necessary but complicated and only offer long-term solutions. The proposals fail to provide solutions to entrepreneurship learners' growing and urgent short-term needs.

The findings from the systemic analysis of the Identity Projects entrepreneurship program shows that such a low-cost and systemic approach offers an immediate and complementary solution to the current gaps in the ecosystem. Therefore, the study proposes partnerships and cooperation of tertiary education institutions with the Identity Projects. Identity Projects will provide personalized and innovative practical ways to teaching entrepreneurship which complements the theoretical and lecture-based teaching methodologies present at the tertiary institutions. Additionally, the Actiotope Model's systemic perspective contains the social capital as an essential exogenous resource for the development of excellence. The collaboration of Identity Projects and tertiary institutions in Kenya will also increase the available social capital for the learners.

Recommended Actions

- There should be a shift from theoretical learning content and traditional teaching methodologies to hands-on practical teaching such as developing a business plan, new venture strategies, opportunity recognition and integration of ICT and computer. Additionally, entrepreneurial education should be taught from the primary education level and be included in all learning areas at the tertiary education level
- 2. The focus of entrepreneurial education should be expanded to include teachings on the entrepreneur's personal development. This might consist of growth mindset, emotional intelligence, health, and well-being etc. So far, no study has shown that these topics are included in entrepreneurship education in Kenya.
- 3. The study proposes the establishment of Identity Project entrepreneurship clubs or societies across higher education institutions in Kenya. The findings show that entrepreneurial education, especially at universities, need radical changes. However, these changes will be costly and take time. Partnership with the Identity Project presents a cost-effective solution to teach entrepreneurship skills to the learners and expose them to networks outside their immediate communities.

Similar partnerships with institutions such as IP might introduce innovative teaching methodologies such as gamification to the students at higher learning institutions in Kenya.

- 4. Another alternative would be setting up incubation centers at all higher education learning centers, which will also be capital intensive.
- 5. There should be more business community involvement in the entrepreneurship education ecosystem. The businesspeople could come in as mentors, coaches, role models or guest lecturers.
- 6. Entrepreneurship education should shift from the teacher-centred type of learning to learner-focused. Innovative ways of working, such as design thinking which places the end-user at the center of the process, has witnessed massive and rapid success in other sectors. The researcher proposes that a similar entrepreneurial education concept tailored around the learner might yield similarly positive outcomes.

Study Limitations

A few limitations were observed while carrying out the research and can be improved in future research.

- 1. The sample size was small and cannot be claimed to be representative of the EEE in Kenya. However, the study was exploratory and provided a first and general impression of the EEE in Kenya.
- 2. Identity Project's program was still new at the research time, and two program phases were still incomplete. This might lead to a skewed comparison with the other two programs that are established and in existence for several years.
- 3. The researcher could not ascertain the quality of the social structures mentioned by the interview partners. For example, the interviewees stated the presence of alumni networks, but the researcher could not establish the effectiveness of such arrangements.

Further Research

For future research purposes, only three institutions were used to collect data because of resource constraints. Future researchers may want to analyze more institutions than the current research. Additionally, this

research focused on one phase of the Identity Projects, which was completed at the research time. Further research may also be done after the completion of the three phases. Furthermore, research may be done to compare the number of people from each institution who start their own enterprises

Furthermore, more research on the Mully Model of entrepreneurship education could be conducted to determine which aspects could be replicated in other institutions. Studies may also be done to analyze the influence of the social support structures identified by the organizations.

Additional research should investigate entrepreneurial education in Kenya's new curriculum. A researcher may want to compare the existing and new curriculum and highlight any improvements in the entrepreneurial education approach.

Finally, the research introduced the Actiotope Model as an analysis framework for the EEE. However, the study focused only on the exogenous capitals, but the model is more robust than presented in this research. Therefore, future researchers may expand the analysis framework to include the model's modifiability belief, goal setting, component, and dynamic perspectives.

Valorization

The primary target audience of the research are the entrepreneurial education stakeholders such as educational institutions, governmental agencies, and researchers. For educational institutions, implementing the recommended actions would produce more graduates with the required skills to set up and run their own enterprises. These entrepreneurial graduates would then form part of the university alumni body and increase the social capital available to the learners in the institution. Incorporating the Identity Projects program as a student entrepreneurial learning club or society would also result in increased exposure and opportunities for the learners because of the interaction between the learners and the Identity Projects' facilitators and partners outside Kenya.

More interaction and collaboration between institutions and learners would facilitate more efficient knowledge transfer for the general entrepreneurship education ecosystem. The partnerships would create a vast cumulative pool of resources that a single institution might not otherwise achieve. Increased participation from the business community would also lead to increased social capital and a favourable entrepreneurial culture.

Poverty and unemployment are two of Kenya's major challenges. The thesis' proposed entrepreneurship education approach could serve as a conduit for developing skills required to create enterprises that create job opportunities to alleviate poverty. Furthermore, incorporating personal development and responsibility teachings would result in graduates who engage in ethical business practices. This would help to reduce the high level of corruption and financial waste. Lastly, the researcher believes that the nature of EEE is nearly identical across Sub-Saharan Africa. Similarly, most of the recommendations apply to other African countries. Increased cooperation among African governments would result in knowledge transfer and exchange for economic development and empowerment of the nations and their residents.

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