Entrepreneurial Education for Revitalization of the Economy: A Case Study on Kenya

Hezron M. Osano, Ph.D., ACIB
Senior Lecturer, The Technical University of Kenya

Universities play a key role as contributors to their communities in terms of economic development through their education and training, research and policy influence and as players in the entrepreneurial ecosystem. Entrepreneurship education is important for empowering students and alumni in playing their role in their communities as innovators and a source of start-ups. Universities play a crucial role by commercialization of research-based innovations and by utilizing the talents of the faculty to provide consultancy and exchange programs to support their communities and industry. In addition, students can play a key role in learning from industry through internship, industry and work-based learning. There is need to re-imagine entrepreneurial education to focus on entrepreneurial mindset, entrepreneurial ecosystem building. Entrepreneurial education should contribute to building and boosting entrepreneurial ecosystems to facilitate start-ups and revitalization of MSMEs. Universities need to address the entrepreneurial education in terms of the what, when, why and how it is done, and impact it will have in economic development. This article is based on the qualitative case study method of data gathering and analysis of information with inductive approach to try to respond to these questions in context of Kenya and the changing technological, socio-economic, environmental and governance system.
Introduction

In Kenya there is a realization of entrepreneurship as a major catalyst to economic growth, job creation and, wealth creation for individuals, and provision of opportunity for equality in distribution of resources and opportunities and increased societal resilience during a time of crisis and pandemics such as COVID-19 we have been experiencing. However, in our education system, adequate measures have not been taken to anchor entrepreneurial education in all levels of education starting from pre-primary, primary and secondary and tertiary levels including our colleges and universities.

The challenges of imbedding entrepreneurial education in our education system range from lack of time and resources, educational structures and policies that emphasize other forms of education disciplines. Unfortunately, entrepreneurship is sometimes considered as a peripheral discipline that does not require the same attention as other disciplines. There also assessment difficulties of learning outcomes and lack of definitional clarity, cultural and historical attitudes in education system, whereby the students are being prepared to formal employment as opposed to the of provision of skills, knowledge and competencies to be creative, opportunity oriented, proactive and innovative to be able to create their own start-ups or to participate corporate/intra-entrepreneurship (Lackeus, 2015).

Design thinking and entrepreneurial mindsets in our students is a critical competence that they should have regardless of their disciplines and career aspirations because innovation and entrepreneurship is required both as an employee in corporate entrepreneurship and as an owner of a start-up. Our educational institutions need to train students to enable them solve societal problems and create value for other people regardless of educational discipline and career goals. Entrepreneurial education and training that is people-centred, integrating humane entrepreneurship approach and that also captures socio-economic, environmental and governance systems and values and which anchors technological advances as enablers for opportunities for advancement and growth rather than as a threat.

In this paper we discuss on what, why, when, and the how of entrepreneurial education and practices as relates to higher education in Kenya. It poses questions on which entrepreneurial education effects to focus on, what to teach, how to motivate and engage students to create value to other people through the knowledge and deep learning they achieve and enhance experiential effect of entrepreneurial education they undertake.

Entrepreneurial Education in Institutions of Learning

The Sessional Paper 1 of 2019, on Policy Framework for reforming of Education and Training for Sustainable Development in Kenya, provides a framework for delivery of inclusive, equitable, quality and relevant education, training and research that promotes lifelong learning opportunities for all. This is education that is in line with the Constitution of Kenya 2010, Kenya Vision 2030, Sustainable Development Goals (SDGs), and other national and international protocols (Government of Kenya, 2019, Government of Kenya 2013).
The emphasis of the system is the provision for early identification and nurturing of talents in individual learners, flexibility, and alignment of the Kenyan structure with international best practices. In addition, attainment of competencies and national values at all levels, integration of science and innovation, and adoption of ICT technologies is emphasized (Government of Kenya, 2019; KICD, 2017).

The reformed education structure has basic education which is organized into three levels: Early Years Education, Middle School, and Senior School. In implementing the education structure there will be need to expand tertiary education and training institutions in order to absorb the incoming learners with new and diverse career paths for acquisition of degrees or diplomas from universities or technical institutions respectively (KICD, 2017). There are three pathways comprising: Art and Sport Sciences, Social Sciences and Science, Technology, Engineering and Mathematics.

In the Basic Education Curriculum Framework (BECF), there are seven core competencies to be achieved by every learner in basic education: Communication and Collaboration; Self-efficacy; Critical Thinking and Problem Solving; Creativity and Imagination; Citizenship; Digital Literacy, and Learning to Learn. Entrepreneurial education starts at Senior School in Social Sciences pathway as unit under business studies. Basic Education cycle offers learners with equal opportunities to advance to the highest level of education and training. Learners progress through the defined pathways which include academic, vocational and technical training and skills development.

The education structure also include, higher education comprising of undergraduate and postgraduate (masters and doctoral) programmes. Technical and Vocational Education and Training (TVET) is given particular emphasis. TVET programmes include: artisan, crafts, Diploma/technician, undergraduate and post-graduate programmes. Learners can also pursue the skills pathway of government trade tests to professional master crafts person. The focus of TVET is the provision of life-long skills that meet the needs of the workplace, industry as well as self-employment. Therefore, integrating entrepreneurial education in the curriculum is key.

ICT has played a critical role in effective delivery of curriculum, improved governance and management, as well as delivery of quality relevant skills and services. However, there are still some challenges faced in integration of ICT in education, training and research due to: inadequacies in internet connectivity, capacity among educators, digital content, as well as ICT standards and guidelines for use in content delivery. In addition, unreliable power supply, attitude, and rapid change in technology pose constraints in realizing the effective utilization of knowledge and skills for economic growth and development (Government of Kenya, 2019, KICD, 2017).

University Education and Post Training Skills Development

The reformed education structure in Kenya recognizes the critical role of university education in provision of a pool of highly skilled manpower in various specialized skills necessary for promoting higher productivity
for national socio-economic development, and carrying out research to provide solutions to societal challenges.

Universities have achieved remarkable progress but they face challenges which include: inadequate resources to cater for the growing demand for university education and research; inadequate staff with PhD qualifications; high capital outlay for mounting SET related courses; negative attitude towards STEM subjects; and inadequate supportive programmes suitable for learners living with disabilities, and the hard to reach (Government of Kenya, 2019; KICD 2017).

In addition, the higher education subsector experiences various constraints including: inadequate infrastructure and equipment, inadequate number and capacity of academic staff, inadequate research capacity, as well as weak collaboration between academia and industry (Government of Kenya, 2019; KICD 2017). These constraints have largely hampered the actualization of experiential entrepreneurship education and learning in most curriculums. Meeting the industry skills needs is also faced by various constraints: mismatch between gained skills and industry, limited data on skills, fast technological advancements in the labour market, and inadequate entrepreneurial skills among graduates for self-employment.

Research and Innovation (R&I) play an important role for sustainable growth and development of the country and need be a critical component at all levels of education and training. There is also need to upgrade platforms for existing technologies in order to improve the quality and services offered and become a knowledge based economy. R&I sector faces some key issues including: low demand driven research, inadequate human resource capacity, inadequate financing, inadequate infrastructure, and weak linkages among R&I actors. These issues need to be addressed if the universities, research institutes, TVET, industry and relevant line ministries and specialized units have to play their role in research and innovation and technology transfer (Government of Kenya, 2019).

Entrepreneurship education is a critical in achieving UN SDGs and Kenya Vision 2030 should be introduced in all levels of our education and training. While introduction of entrepreneurial education has worked to some extent at higher education level as elective courses and in few cases as full degree courses, it has not been easy to introduce it at primary and secondary levels. It is argued that entrepreneurship education has an impact through the high levels of student motivation and engagement it can trigger, and also the resulting deep learning (Lackéus, 2015).

The value creation aspects of entrepreneurial education and training that students undertake can serve as a further impetus to continue entrepreneurial learning at all levels including organizations that they work in or they build. However, there is need for change of cultural, economic and institutional perspectives and a need to educate and train all ‘trainers of entrepreneurship education’ and develop appropriate infrastructure and support to ensure facilitation of entrepreneurial education at the all the relevant levels. This has implications on how to plan, implement, and assess entrepreneurial education in institutions of learning.
Entrepreneurship in higher education

It is incumbent upon universities that they re-imagine how they teach entrepreneurship in order to positively influence students towards entrepreneurial intentions and activities. Entrepreneurial intention of university students is defined as "a conscious awareness and conviction by an individual that they intend to set up a new business venture and plan to do so" (Nabiet al., 2010: 538). It is argued that entrepreneurship arises from a deliberately planned behavior which makes it necessary to understand its processes and motivation (Liñán, 2008). It is argued that entrepreneurial activity and intention is explained by the interaction between cultural, economic, and institutional perspectives (Bae et al., 2014; Krueger et al., 2000; Lee et al., 2011).

Harris and Gibson (200 attribute the factors that lead failure of businesses owned by young entrepreneurs to include: lack of knowledge and entrepreneurship education, the role of family support in developing confidence and determining a child's career path, lack of experience or a propensity for low risk-taking behavior. It is therefore important appropriate entrepreneurial education and training is done at all levels including primary, secondary and tertiary and also sensitization and training of entrepreneurial education at the family levels as families are critical in mentorship of young people towards entrepreneurial activity and intention.

Apart from personal factors, environmental factors such as government regulations, the financial and economic infrastructure of the country or region, market opportunities, and various socio-cultural elements as well determine entrepreneurial intention and activity (Nabi and Liñán, 2013). Universities should play an important role, as entrepreneurial ecosystem builders, to influence policy and enhance collaboration among ecosystem stakeholders to remove these obstacles in order to increase entrepreneurial vocation among students (Jackson, 2015).

Universities need to address two main questions: what to teach and how to do it. This will require a review of the curriculum in entrepreneurial education so that those elements that affect entrepreneurial intention and activity are addressed. This will also include incorporating in the curriculum elements such as how to build robust entrepreneurial ecosystems, entrepreneurial mindsets, humane approach to entrepreneurship and integrating UN Sustainable Development Goals, and how technological development affect the nature, process and availability of entrepreneurial opportunities. It is also important to inculcate education on entrepreneurial skills as a way to complement the knowledge related to functional disciplines and to encourage entrepreneurial intentions among college students from the outset through graduation (Winkler et al., 2015; Smith and Beasley, 2011).

The model of education that is advanced is a combination of organized education and university institutional support. In the former, it entails a curricular one, associated with the coursework required for different degrees as part of their curricula, focused on the development of competences; and the latter, an extracurricular component,
related to those actions developed through awareness, entrepreneurial support and/or aid. These extracurricular actions are aimed at fostering interest and intention in starting a business (Collins et al., 2004; De Faoite et al., 2003; Fayolle and Gailly, 2015; Liñán, 2008; Rasmussen and Sorheim, 2006; Souitaris et al., 2007).

Extra-curriculum or support activities are classified as cognitive (entrepreneurship culture awareness), informative/formative (oriented towards providing information and enterprise competencies) and instrumental (designed to provide resources and physical help for the materialization of entrepreneurship intention) and include such initiatives as business incubators/accelerators, co-workspaces and makerspaces (Arranz et al., 2017).

In this context, entrepreneurial educational should offer students learning and skills that address real-world problems to enable them create sustainable economic and social value in today’s fast paced global economy and to contribute to Kenya’s Vision 2030 and UN Sustainable Development Goal No. 8, and 9 through MSMEs (MSMEs ICSB Report, 2018). It is necessary to develop strategies for embedding creative learning-by-doing into content and theory laden entrepreneurial education curricula (Lackéus, 2015).

Universities and higher education institutes, in collaboration with other stakeholders, can provide support in terms of technical and entrepreneurship training, as entrepreneurial ecosystem builders, by running incubators, accelerators, maker-spaces, and co-working spaces business support services, business diagnosis, mentorship and coaching; promotion of technology and innovation; rapid technology (tech) skills trainings (bootcamps), and facilitating access to markets, and linkages to local and global value chains. In addition, they can play their role in corporate engagement by organizing pitch competitions, demo days, and happy hours events. They can also organize and facilitate mentorship networks in order to connect experienced professionals, from large companies, with small and medium enterprises.

Universities also play a key role by developing entrepreneurial mindsets and as suppliers of entrepreneurial manpower and academics/researchers as suppliers of knowledge. In particular Universities and Higher Education Institutes in Kenya in collaboration with the National and County Governments, Industry, and Civil Society, need to play their role as ecosystem builders and players. They need to facilitate appropriate entrepreneurial education and training, catalyze the flow of talent, information, and resource by focusing their work on building a system of support and resources for entrepreneurs in their communities or industries by pursuing best practices in sustainable development and environment preservation and good governance.

Impact
The re-imagining of entrepreneurial education can contribute to: Universities in equipping the students with experiential and relevant education for industry and thus increase the employability of its graduates; Up-scaling of the local manufacturing capacity and contributing to the Government’s Big 4 Agenda; Contribution towards SDGs agenda for poverty alleviation through creation of employment opportunities for the youth and women; Contribution to SGDs for health (COVID19 Open Markets) and cleaner and sustainable environments; Strengthening of linkage between Jua Kali, MSMEs and the local and international value chains the sector
will increase employment opportunities and GDP growth; The standardization of products to enable the MSMEs and Jua kali in particular to access new markets and compete favourably; The enhanced skill pool that will drive productivity improvement of the MSMEs and Jua Kali sector and hence facilitate the development of products that can be competitive in the global market; and Improved applied research, the capacity to provide policy direction for appropriate interventions for the promotion of the MSMEs and Jua Kali. These initiatives will to:

Increased innovation and technology output to the economy which can contribute to technological development in terms of processes, systems and new technologies; and in developing and strengthening Academia-Industry linkages.

As in Kenya and elsewhere, entrepreneurial education should trigger deep learning and instill engagement, joy, motivation, confidence and feelings of relevancy among students, and lead to job creation, economic success, renewal and innovation for individuals, organizations and society at large. But it is constrained by lack of support, time and resources in educational institutions, assessment difficulties for both teachers and researchers, and lack of firm advice to teachers on what to incorporate in various levels of entrepreneurial education curriculum in order to integrate learning-by-doing and value creation pedagogical approaches (Lackeus, 2015).

Conclusion
Universities can transform the institutional environment for entrepreneurial education and training by introducing new structural elements, such as business incubators/accelerators, start-up project teams into it and strengthen industry and university collaboration through work-study and joint projects with industry.

Universities are expected to provide relevant entrepreneurship education that has real impact on the creation of jobs and can provide required skills and competencies to industry. Industry-university collaboration can be enhanced by ensuring that education is aligned with the company’s research and development strategy, business setting, and company practices; researchers and students engage in networking activities intended to maintain cross-organizational relationships and establishment of strong communication linkage to increase the impact of the education and training and exchange for the company and university and to develop long-term relationships between universities and industry (Pertuze et al. 2010).

Universities need to integrate entrepreneurial learning and training within all disciplines of the universities to facilitate cross-fertilization and to spur creativity and innovation and also to facilitate technology transfer and nurture entrepreneurial mindset and culture within university staff, alumni and students. They also need to review their curriculum to include more experiential learning and training that is in-line with technological development so that they can prepare students for the future of work and capacity in students to identify business opportunities and implement them. This focus is imperative during the changing technological world-space, socio-economic, environmental and governance systems regimes.