



A strategic mind-set shift for African Youth engagement in Agriculture Education

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The African continent will double in population to hold an estimated 2.5 billion of the world's nearly 10 billion people by 2050. There is an increasing consensus that innovation, entrepreneurship and agribusiness incubation is key to containing youth unemployment in Africa and the disruptive innovation needed to make the continent equals among nations. There is no doubt that entrepreneurship policies have a multifaceted nature and linkages with other areas, such as education and skills development, technology and innovation, finance and capacity-building.

However, there is enormous potential for innovation to transform African agriculture, bringing jobs and strengthening food security. Currently, in Africa, there is no holistic and systemic approach developed to include entrepreneurship policies in ensuring coordination and coherence that challenge African youths for agricultural transformation.

Our inability to adopt and adapt “agriculture as a business” has remained the most critical constraint to revolutionising agriculture. Combining innovation, entrepreneurship and new technologies with an ‘agribusiness mind-set’ could have a transformation effect, leading to economic growth, job creation and sustainable livelihoods. Instead of agriculture simply sustaining people just above the poverty line, it should be transforming lives, communities and societies and by extension an entire Continent. An Agri-zone across Africa could transform farmers from food producers to food entrepreneurs. Food entrepreneurs drive the potential of the sector they operate in and meaningfully contribute to the wider world as we have seen with the technological revolution of the last two decades.

While start-up programmes have proliferated in different continents to enhance value creation in the agricultural sector for job and youth engagement, the African continent has not focused greatly on agricultural entrepreneurial growth, which is about developing an innovative food system linked with ensuring the development of new enterprises, economic growth and prosperity for all.

Youth entrepreneurship has become a priority for the development agenda of many countries that are faced with the challenges of a youth bulge and unemployment. According to the Global Entrepreneurship Monitor (GEM) report (2013), young people are more likely to have fresh ideas

and to be “born digital”; in some societies, they have received more education than their parents.

African Graduates

There are several important questions when it comes to our university graduates that have to be answered especially given the quality of those currently graduating.

Do our current education programmes prepare students to fail in the employment sector? Does our education system push boundaries and achieve the unexpected status of job creator? The university has long been a place where the business leaders of tomorrow first get their “big ideas.” However, how many of those great ideas ever get off the ground? How many took years of waiting and struggle to finally start a business? How can we encourage the pursuit of these ideas in our institutions through teaching and learning? How can we foster talent that leads to the creation and growth of new indigenous businesses? It is time to rethink what African universities are designed to produce?

Entrepreneurship and innovation are the driving force of economic growth, spawning new industries and spurring growth and competition among existing ones. For example, in the early 1960s Frederick W. Smith wrote an economics paper at Yale outlining a plan for an overnight delivery service that used computers to schedule and track shipments. A few years later, he started FedEx.

Larry Page and Sergey Brin invented Google as a PhD project at Stanford. Alexis Ohanian started Reddit with fellow student Steve Huffman while both attended University of Virginia. Michael Dell of Dell Computers started his company selling computers he built by hand from stock components in his dorm room at University of Texas. In addition, we all know the story of Facebook, founded at Harvard by Mark Zuckerberg with his roommates and fellow students Eduardo Sverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes.

African Universities as Engines of Youth Employment

With the growing importance of knowledge-based industries, policy makers in the private and public sectors should recognise the importance of universities in regional economic development (Chakrabarti & Lester, 2002). The role of Massachusetts Institute of Technology (MIT) in the growth of industries in the greater Boston area and Stanford University in the Silicon Valley are well known. One can observe a similar experience with other universities in the EU, China and India.

The underlying vision inspiring the direction of education for youth employment in Africa must be centred and aligned with enhanced synergies between teaching, research and innovation. The core principles of most African universities of students learning, researching and innovation partially rest with the past, it has become imperative that universities refocus and shape their curriculum towards better preparing graduates for training delivered and based on the following principles:

1. Develop a connected curriculum, building on existing strengths and best practice globally.
2. Align curriculum offerings with demand and teaching and research

- priorities.
3. Constructively align assessment practice with learning outcomes with job and entrepreneurship development.
 4. Facilitate students' development of core values and attributes for innovations.
 5. Establish alliances with the private sector to ignite the development of start-ups.
 6. Reform academic governance so that innovation is enabled, coherence is restored, and risk is reduced.

University-Industry Relationships

University-industry relationships are not a new phenomenon. Germany was the pioneering country where a university-industry relationships helped create the pharmaceutical industry in the early 19th century. The United States has taken an active role in developing and fostering university-industry collaboration.

Students from every discipline work together to examine the problem or market, design and build prototypes, write business plans, and in some cases, spin off and start a real business based on their ideas.

I would like to think of the university as an idea incubator. We are not just lecturing to students, giving them tests, and sending them on their way, diploma in hand, at the end of four years. We must recognize that students and their ideas are the engines of tomorrow's economy, and they should be encouraged to pursue those ideas — not someday — but today. Also, the university community should continue to be the centre of idea generation as a community, a lifelong learning continuum, a vibrant alumni, with global connections built on a relationship between students and the university that remains for life.

University Patent Products and National entrepreneurship policies

Universities and other public research organisations are increasingly tasked with inventions – spurring new start-ups. The rise in these innovations has occurred against a broader policy framework aimed at fostering a greater interaction between public research and industry in order to increase the social and private returns from public support to Research and Development (R&D) on the one hand and the emergence of new businesses that generate employment.

Over the past 30 years, Agrinatura have focused on research results and increased capacity/education to policy and practice development; bring researchers educators into strategic alliances, partnerships and networks with stakeholders; joint (north-south) participation in European / international programmes and projects to build synergies and capitalise on collective action vested in member institutions to develop patented brands. While this has not been an easy task, Agrinatura have been able to mobilise resources, establish synergies with its members and international partners to improve the quality of peoples live around the world by:

- Playing a pro-active policy advocacy role for agricultural research and education for development in Europe and worldwide.
- Working with a network of partner organisations across the world that share our vision.
- Developing, strengthening, and encouraging strategic alliances, partnerships, and networks with and between the different stakeholders (institutions, organisations, and individuals) worldwide.
- Organising, facilitating, and implementing joint participation in European and international research programmes and projects.
- Providing support and advice for evidence-based policy making, at the European level, and
- Offering a platform for exchange and dissemination.

How many African countries have a national recognition of the need for a holistic and systemic approach to formulating youth entrepreneurship policies focused on indigenous innovations across food systems with coordination and coherence to achieve job creation?

The political constraints to youth unemployment in Agriculture

There is a recognition and a shift in focus when it comes to innovations related to entrepreneurship development in African agriculture. The downside is that a range of operatives on the Continent have not positioned the agribusiness sector as effectively as they could have and so Africa has not reached the 'promised land' of: job creation, food and nutrition security, sustainable environment, effective youth-oriented policies and innovative development strategies needed to tap the energy of Africa's young labour force.

There are always challenges to overcome and majority of these challenges include unhelpful attitudes, perceptions and personal agendas. Conflicting epistemologies result in disagreements about what is 'good science' – lack of coherent shared framing; lack of coherent transdisciplinary orientated outcomes; guarding objectivity, dealing with norms/power; integration of methods, difficulties in developing dialogue between the farmers/consumers and policy leaders and turn it into practice, development of novel research methods and lack of understanding and skills in participatory processes and empowerment of practitioners in sustainable agricultural research.

There is a growing interest in educational innovation in universities at all levels because it is increasingly recognised as a tool designed to create strategic changes in order to improve agricultural and quality food systems. It should also be noted that there is a complex inter-relationship when it comes to achieving sustainable agricultural systems practices, preventing environmental degradation and reducing the impact of climate change. The global scale of commercial food value chains causes additional challenges, such as increased social and economic vulnerabilities and inequities, livelihood stresses for farmers, disconnection between rural and urban areas, water and food-related conflicts, and ultimately (forced) migration, requires a cohesive investment in education.

Given the above, higher education should re-purpose curricula to train future scientists, entrepreneurs, practitioners and decision-makers in systems thinking, multi-stakeholder

collaborative approaches, adaptive management and soft skills in order to strengthen the innovation capacity within the agricultural sector.

About the Author:

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