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Research Application Summary

Benchmarking transformative capacity building interventions: The case of entrepreneurship training programmes supported by RUFORUM

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Abstract

The regional universities forum for capacity building in agriculture is implementing a programme; Transforming African Agricultural Universities to meaningfully contribute to Africa's growth and development (TAGDev) with support from the Mastercard foundation. The overall objective of the programme is to transform African agricultural universities and their graduates to better respond to developmental challenges through enhanced application of science, technology, business and innovation for rural agricultural transformation. All this is anticipated to extend transformative education that will support economic growth and impact the lives of local communities through training proactive (talented agricultural education and research leaders and innovators) and entrepreneurial graduates with leadership skills and potential to drive sustainable and inclusive economic growth and create impact in the rural communities. Achieving transformative education can be acquired through several measures including entrepreneurship training where universities serve as innovation and incubation hubs for creating a cadre of entrepreneurial graduates with high success transition levels in employment and job-creation as well as in influencing national and regional social and economic transformation. The transformation arising out of entrepreneurial education can be measured through business innovations established by students; students that engage in self-employment through undertaking entrepreneurship; survival of the enterprises established by the students; and existence of university business incubation centers that serve as a hub to provide opportunity to students, other innovators and entrepreneurs to design and validate their business models and products and test their viability for success in the real world. Measuring such transformation requires that benchmarks are established to identify and evaluate excellence and innovation, and establish a reference point, or baseline for facilitating future comparisons. Within the TAGDev Programme of RUFORUM, several implementation aspects require benchmarking and amongst these include agribusiness/entrepreneurship at Gulu and Egerton Universities and selected TVET institutions; and, scaling-out approaches for strengthening entrepreneurship programs in selected RUFORUM member universities. This paper therefore establishes key benchmarks vital in assessing transformative interventions of RUFORUM.

Key words: Baseline, Egerton University, Gulu University, TAGDev, target, transformation

Résumé

Le Forum Régional des Universités pour le Renforcement des Capacités en Agriculture est en train de mettre en œuvre un programme : Transformer les universités agricoles africaines pour contribuer de manière significative à la croissance et au développement de l'Afrique (TAGDev) avec le soutien de la fondation Mastercard. L'objectif global du programme est de transformer les universités agricoles africaines et leurs diplômés afin de mieux répondre aux défis de développement par une meilleure application de la science, de la technologie, du business et de l'innovation pour la transformation de l'agriculture rurale. Tout ceci est anticipé pour étendre l'éducation transformatrice qui soutiendra la croissance économique et aura un impact sur la vie des communautés locales grâce à la formation de diplômés proactifs (des leaders et innovateurs talentueux de l'enseignement et de la recherche agricole) et entrepreneurs dotés de compétences en leadership et susceptibles de stimuler une croissance économique durable et inclusive et de créer l'impact dans les communautés rurales. La réalisation d'une éducation transformatrice peut être acquise grâce à plusieurs mesures, notamment la formation à l'entrepreneuriat où les universités servent de centres d'innovation et d'incubation pour créer un cadre de diplômés en entrepreneuriat avec des niveaux de transition à haut succès dans l'emploi et la création d'emplois ainsi que pour influencer la transformation sociale et économique nationale et régionale. La transformation résultant de la formation à l'entrepreneuriat peut être mesurée par des innovations commerciales établies par les étudiants; les étudiants qui se lancent dans le travail indépendant en entreprenant l'entrepreneuriat; survie des entreprises créées par les étudiants; et l'existence de centres d'incubation d'entreprises universitaires qui servent de moyen pour offrir aux étudiants, aux autres innovateurs et aux entrepreneurs l'opportunité de concevoir et de valider leurs modèles et produits de business et de tester leur viabilité pour réussite dans le monde réel. Mesurer une telle transformation nécessite que des repères soient établis pour identifier et évaluer l'excellence et l'innovation, et établir un point de référence ou une base de référence pour faciliter les comparaisons futures. Dans le cadre du programme TAGDev de RUFORUM, plusieurs aspects de la mise en œuvre nécessitent une analyse comparative et parmi ceux-ci, il y a l'agro-industrie / l'entrepreneuriat dans l'université de Gulu et d'Egerton et les institutions TVET sélectionnées; et la mise à l'échelle des approches pour renforcer les programmes d'entrepreneuriat dans des universités membres de RUFORUM sélectionnées. Cet article établit donc des repères clés essentiels à l'évaluation des interventions transformatrices de RUFORUM.

Mots clés: Ligne de référence, Université d'Egerton, Université de Gulu, TAGDev, cible, transformation

Introduction

Embedded under the RUFORUM Vision 2030 strategy is RUFORUM's transformative agenda for Africa's agriculture that integrates social, business and technological transformation (RUFORUM, 2017). One of the outcomes of the agenda is a 'dynamic regional platform that fosters collaboration, coordination and learning among member universities through programmes that enhance the agribusiness acumen and entrepreneurship among students, university staff and communities. The strategy further encompasses strengthening agribusiness and entrepreneurship through student and/or community enterprise projects. Strengthening

agribusiness and entrepreneurship requires that a reference point/benchmark is established for the initial measurement of indicators to facilitate the tracking of outcomes and impacts over time, and thereby establish a firm foundation for rigorous evaluation afterwards. The focus on entrepreneurship is attributed to the high potential for entrepreneurship education in enabling students attain self-employment; influence on student's interest in entrepreneurship as well as the choice of business venture (Afolabi *et al.*, 2017); and enhancement of student's readiness in writing business plans while considering the element of integrate business function and understanding the basic business process (Guzairy *et al.*, 2017). Despite this high self-employment potential of entrepreneurship, RUFORUM previously had limited information on the potential value of entrepreneurship education on the entrepreneurial outcomes of university graduates, a situation warranting the need to establish benchmarks to guide the implementation of the entrepreneurship aspects of RUFORUM. Entrepreneurships aspects currently undergoing implementation at RUFORUM include the RUFORUM Entrepreneurship Challenge Program (RECAP), an innovative program that builds on the successful student enterprise scheme operated by Gulu University and Egerton University through which student business ideas are incubated with technical assistance and financial capitation through a revolving fund. Through RECAP, agricultural universities will have the opportunity to establish Agribusiness incubation Centers (AIC) as part of operationalizing the Entrepreneurship Challenge Program to foster further development of innovative business ideas leading to products and/or services on national to regional scale. Currently there are over six agribusiness incubation centers in Africa under the support of Forum for Agricultural Research in Africa (FARA), an African Union program under the UniBRAIN (Universities, Business and Research in Agricultural, Innovation) facility (Hjorts, 2017). Another aspect is the CARP+ which amongst several elements is expected to mainstream agribusiness into educational processes and at community level; and, have a strong agribusiness focus with linkage to the TVETs, industry and policy actors as part of transitioning smallholder farmers into business oriented entities linked to industry and TVET institutions. This paper therefore established key entrepreneurship benchmarks including the potential for entrepreneurship training in enabling graduates establishing own enterprises; and, survival of student-initiated enterprises.

Approach

This study involved a content analysis of baseline and impact evaluation studies undertaken by the TAGDev programme at Gulu and Egerton Universities.

Benchmarking entrepreneurship/agribusiness aspects of RUFORUM

Skilling graduates through entrepreneurship training. As a result of entrepreneurship training, trainees are capable of attaining several skills, including communication skills, self-development skills and problem solving skills (Table 1). These skills could eventually be exploited to address the business development services required by smallholders, most especially enterprise selection, student enterprise information sharing, value chain platform engagement and, financial advice. Of these skills, communication is the most important skill due to the fact that entrepreneurship mostly encompasses interaction with people, development of concepts and proposals, and presentation. This was similarly reported by Odongo *et al.* (2017) who indicated communication skill as one of the skills relevant for graduates in the job market. The additional focus on self-development skills is attributed to

the fact that entrepreneurship and innovation encompass personal gain and competence, and hence a driving force to compel students to establish their own enterprises.

Table 1. Skills gained by graduates by program of study

Program of study	Skills gained by programme of study %				
	Communication	Problem Solving	Job related	Self-development	Others
Agribusiness Management	58	31	9	44	11
Agricultural Economics	83	77	25	66	2
Animal Sciences	50	44	13	56	0
Horticulture	80	70	16	56	0
Agronomy	36	21	29	21	0
Food Science and Technology	33	29	13	50	17
Agricultural Education and Extension	10	29	35	40	2
Community Development	22	11	33	33	0
Animal Health	56	33	28	44	0
Dairy Technology and Management	60	60	20	30	0
Total	49	41	22	44	3

Percentage of graduates establishing own enterprises

RUFORUM is implementing several projects including the TAGDev programme with several targets including at least 20% of the students establishing small and medium enterprises (SMEs) in the short and medium term (1-3 years) after completion, with at least 5 % of the established enterprises surviving beyond two years. To benchmark this target, analysis of baseline reports indicated that 19 % of Egerton University graduates established own enterprises (Table 2), while only 1.7 % of the graduates from Gulu University established own enterprises (Table 3). The percentage of Egerton university graduates establishing own enterprises varied amongst the programmes, a situation warranting the need to sensitize all students about the important role entrepreneurship plays in the creation of employment and as an alternative source of employment. The major motivation for students to establish own enterprises was the quest for supplementing income and self-employment. The low percentage of Gulu University graduates establishing own enterprises demands that entrepreneurship training is strengthened through several mechanisms including retooling staff in the delivery of entrepreneurship curricular; undertaking curricular reviews; and designing short courses for students and lecturers in entrepreneurship.

Besides establishment of enterprises, the survival of these established enterprises is very critical as reported by Khalil and Olafsen (2010) who estimated survival of incubated enterprises at 84 % provided the incubatees maintain contact and working relations with the incubation centre during the first three years of establishment. Maintaining contact with the incubation center during the first three years of establishment is crucial because most businesses are vulnerable to collapse within this timeframe of establishment. Contact with the incubation center could

education as having an effect on the development of initiative and entrepreneurial attitudes. Other than the educational level, the creativity of students has a direct influence on the ability to establish entrepreneurship ventures due to enhanced problem-solving skills and, ability to link the creative mind to the business mind (Table 4).

The study further established that attaining self-employment as well as occupation in the public rather than the private sector is more favorable for graduates to establish own enterprises (Table 4). This could be attributed to the fact that employment in public institutions provides ample disposable time for private activities as well as enabling active involvement in business as source of employment. These results are in agreement with those of Coduras *et al.* (2016) who reported increased entrepreneurship activity for public sector employees than private sector employees. On the other hand, graduate unemployment results into lack of the necessary capital for establishing enterprises, and thereby hindering establishment of entrepreneurship ventures. Concerning courses undertaken by self-employed students, animal science related courses contributed least to self-employment, a condition implying that emphasis for fostering entrepreneurship needs to be redirected to other courses rather than animal science. However, Lemma *et al.* (2014) reported animal science courses as a viable entrepreneurship opportunity.

Table 3. Gulu University graduate employment statistics

Employment status	Time of study	Time of graduation
Employed	88.33	58.3
Self employed	1.7	10
Post graduate studies	6.7	0
Not Employed	3.3	31.7
Time to get a job		
Before graduation	58%	
< 6 months after graduation	84%	
12 months after Graduation	96%	

Source: Odongo *et al.* (2017)

Factors influencing graduates to start own enterprises . The study established 61 % as the probability of an entrepreneurship graduate to start up a business, with male students more likely to start up a business compared to their female counterparts (Table 4).

Table 4. Logistic estimates on factors influencing graduates to start a business

Variable	dy/dx	Standard Error	P>z
Gender	0.204***	0.068	0.003
Influence of entrepreneurship course	0.478***	0.074	0.000
Creativity	0.108*	0.057	0.057
Public employment ¹	0.179**	0.071	0.012
Self-employed ¹	0.294***	0.070	0.000
Unemployed ¹	-0.319***	0.119	0.007

¹AGBM - Agribusiness Management; AGEC – Agricultural Economics; ANSC – Animal Sciences; HORT – Horticulture; AGRO – Agronomy; AGHE- Agriculture and Human Ecology Extension; DAST- Dairy Science and Technology; HORT-Horticulture; BUST- Business Studies; FORM- Integrated Forest Resource Management; DATM- Dairy Technology and Management; MENT- Manufacturing Engineering and Technology; FOST – Food Science and Technology; AGED – Agricultural Education and Extension; CDEV – Community Development; ANHE – Animal Health; FAM – Diploma Farm Resource Management; AGEN – Agricultural Engineering; DAT – Dairy Technology.

Conclusions

This study has established key baselines for benchmarking the evaluation of the agribusiness/ entrepreneurship component of the TAGDev programme at the mid and terminal evaluation phases. Specifically, the study established the skills likely to be manifested in the graduates as a result of entrepreneurship training; the baseline percentage of Gulu and Egerton University graduates establishing own enterprises as well as the key factors influencing enterprise establishment; and, survival of enterprises established by graduates

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