

Final report for the study to enhance lessons learned and knowledge exchange in the UniBRAIN agribusiness innovation incubator consortia

Conducted by Associate Professor Carsten Nico Hjortsø and others during August 2012-March 2014

Journal nr. 104.dan.8.b.70
Bevillingsnummer: UFT/2012/7

Background

Networking and knowledge sharing within and between the six agribusiness innovation incubator consortia (AIICs) consortium partners was foreseen to constitute significant challenge due to institutional and geographical factors. Therefore, the purpose of this study was to minimise barriers to the implementation of the UniBRAIN programme and improve programme impact on educational and economic development by contributing to enhancing the organisational learning process of the AIICs. This was done by capturing participants' experiences and by facilitating a discussion of lessons learned across the programme.

The study aimed to address the AIICs' efforts within two areas corresponding to UniBRAIN's main objective:

- 1) How are agribusiness product, service and process innovations supported and promoted by tripartite incubator networks comprising universities, research institutions and private enterprises?
- 2) How are universities supported in developing agribusiness curriculums that facilitate graduates' leaving university with entrepreneurial and business skills?

The study was implemented during 2012-2014 under the leadership of Associate Professor Carsten Nico Hjortsø (CNH), Department of Food and Resource Economics, University of Copenhagen (UCPH). Two, already funded UCPH PhD students contributed in kind to the study.

In the following, a short discussion of the critical assumptions is provided as a background for an evaluation of the obtained results.

Critical assumptions

The following critical assumptions were made in the project proposal:

1. *The study will be seen as a value adding activity and the incubators will feel ownership to the process*
2. *Incubator partners are willing to contribute actively in providing information on their activities*
3. *The study's data collection will be supplemented by ongoing data collection carried out by local MSc students, NARI researchers and university researchers in collaboration between UCPH and consortium partners funded through alternative sources*
4. *UniBRAIN, FARA and UCPH will engage in resources mobilisation and collaborations that can contribute to ensure a local research contribution*

The first assumption has been met. The AIICs have expressed that they saw the study as a value adding activity, primarily because discussions during the regular visits and the publications Discussion Note 1 provided an opportunities for the AIIC partners to consider the way they organized activities. The second assumption was also partly met. AIICs have kindly contributed

their time to interviewing sessions and have been very supportive in helping to connect the researchers with relevant participants, when needed. Securing written documentation from the incubatee selection processes has in some cases been more difficult.

The third and fourth assumptions have not been met. African Network for Agriculture, Agroforestry & Natural Resource Education (ANAFE) assumed a coordinating role in relation to planning and implementing research within the UniBRAIN programme, including the research carried out by African MSc students. Unfortunately, and for a number of reasons, it has not been possible to establish specific research collaboration projects between AIICs, MSc students, and UCPH partners. Data collection has been supported by UniBRAIN and AIICs, although it has been difficult to retrieve all the information needed to carry out a more detailed study of, for example, on the incubatee recruitment processes. Next, a brief overview of the implementation activities is provided.

Implementation

Ten field visits have been conducted during October 2012 and February 2014 (see Appendix 1). More than 70 persons have been interviewed and/or engaged in discussions during the visits to five of the six incubators (Appendix 2). Due to the political and armed conflict in Mali, visits were not possible to UniBRAIN-WAARI. Interviews with the WAARI incubator manager were therefore carried out on several occasions in connection with his participation in UniBRAIN Partnership meetings.

Two Danish PhD students have participated in the study, although one of them only to a lesser degree. It has been very difficult to align the study with the progress of the PhD students, mainly due to the prolonged establishment process of the AIICs and partly due to the difficulty to access curriculum development related information (UniBRAIN objective 2).

The data collection was partly expected to rely on self-reporting by the AIICs through the UniBRAIN Information and Collaboration System (UniBRAIN-MICS). This has not been possible as the MICS system did not become operational during the period of the study.

Communication has sometime been a challenge. AIIC partners were very required to provide information to and spend time on many different external partner, and based on consultation with the facility coordinator we abandoned the planned use of an internet survey as this would most likely not have been seen as contributing to the implementation, but rather would have been experienced as a source of additional administrative work being imposed from an external partner. Therefore, communication has been focused on face-to-face interviews, which the participants did not need to prepare much. Few attempts have been made to obtain written input prior to discussion sessions, and with little success. The initially planned online exchange of experiences has also been substituted by face-to-face interaction, recognizing the amount of information that participants were already exposed to. AIIC partners limited use the software Business Model Canvas, STRATEGIZER, and MICS also supported this decision. Next, the study outputs will be presented.

Results

Below, the direct outputs outlined in the study proposal are compared with the obtained results:

Planned outputs	Obtained results	Explanation
Three Discussion Note (DN) publications (primarily on incubation process and curriculum development	One DN published; one DN in preparation. Third DN postponed.	Elaboration of the originally planned DNs was not possible due to the prolonged implementation phase where no incubation activities were performed. Due to the lack of

process)		<p>access to programme level information on curricula development process and limited implementation activities at the AIIC university level, no DN in relation to curriculum development was produced. Alternatively, a DN was produced summarizing the initial concerns regarding the implementation incubators raised by AIIC partners. This DN was subsequently used as a means for AIIC discussions in relation to incubator strategies and implementation designs.</p> <p>A second DN was planned as a follow-up, using the first DN as a facilitative device for capturing the actual experiences gained during the first years. The data collection methodology relied on written feedback from key-actors in the AIICs based on a template derived from the initial DN. This data collection was not successful as few respondents provided the necessary input for the DN. To finalize the DN, a final interview round needs to be conducted to obtain the qualitative data needed. This is planned for Nov/Dec. 2014 during the second project phase.</p> <p>The third DN will be elaborated based on the experiences gained from the initial incubatee selection process. This DN is planned to be published in Feb. 2015.</p>
Two Internet platforms: a) on incubation management, and b) on entrepreneurship/business management	Done	<p>It was agreed with the facility manager that internet platforms should be developed by UniBRAIN and subsequently supported by UCPH in terms of content. UniBRAIN established a Dropbox based library for sharing relevant incubation and business management literature and the study has contributed relevant literature to this collection. The experience is that there is a limited use of these kinds of sources, and the researcher has used the visits to identify specific knowledge and information needs and have shared relevant literature directly with interested AIIC partners.</p>
6-10 African MSc theses/NARI research projects	Ongoing	<p>Despite several invitations by UCPH to initiate research collaboration, no specific requests have been made to initiate such collaboration. One likely reason may be that</p>

		AIICs are natural or life science/technology oriented, and have little interest in and experience with conducting social science/management research, e.g., on incubation, incubator, entrepreneurship or innovation research.
2 UCPH PhD thesis	Under way	One PhD is conducting research in relation to a) agribusiness students' entrepreneurship intentions, b) university teachers' intentions to and process of revising the agribusiness curriculum, and 3) cultural and institutional aspects of curriculum change. The other PhD student has initiated a study of the institutional aspect of the AIIC establishment phase, but for several reasons this project is not very advanced. A third PhD is initiating a study of incubator management practices, a study that will be carried on during a second study phase.
Discussions at biannual partnership meetings	Participation in two meetings	CNH has participated in two meetings and have presented results and facilitated discussion based on the results obtained during the field visits.

Achievement of the objectives of the study

The proposal identified seven objectives by which the study aimed to add value to the UniBRAIN AIICs implementation efforts. In the following, an evaluation is made regarding the degree of achievement in relation to these objectives.

Objective 1. *Enhance the impact of the UniBRAIN project by ensuring timely feedback to member consortiums of the lessons learned during implementation.*

Degree of achievement: The study has contributed to this objective although one limiting factor has been the limited degree of actual incubation and incubator management activities. Much of the activities during the initial phase have been related to the institutional environment rather than the operational dimension. In addition, it was clear from the outset that the researcher did not aim to substitute the expert role conducted by UniBRAIN partners such as ABI-ICRISAT and Pan African Agribusiness and Agro Industry Consortium (PanACC), but should play a role through asking questions and facilitating discussions that could support reflexion on own practices. Initially, it was also emphasised by the facility coordinator that the researcher should avoid assuming a 'teaching' or 'expert' role, since this would most likely create a barrier to frank and open exchange of experiences. This strategy seems to have worked well and a significant level of trust seems to have emerged between the researchers and the AIICs.

Objective 2. *Collaborate with incubator consortiums to define relevant data needs, and generate quantitative and qualitative information reflecting the projects' experiences regarding what promotes or hinders implementation.*

Degree of achievement: We have initiated this collaboration at the later stage of the study, since no implementation activities were conducted throughout most of the period. The data collection is

primarily focused on the incubatee recruitment phases in order to establish a foundation for long-term impact assessment.

Objective 3. *Focus on incubator experiences within UniBRAIN's two main objectives: a) their efforts to support commercialization of agribusiness innovations (UniBRAIN Output 1), and b) their effort to support tertiary educational institutions to produce efficient entrepreneurs (UniBRAIN Output 2).*

Degree of achievement: Activities related to the first main objective – commercialization – have not been initiated during the timeframe of the first study, and activities in relation to the second objective – curriculum change – has only to a very limited degree been initiated. The first phase has primarily been focused on institutional aspects and the researcher's contribution has mainly been aligned with this focus.

Objective 4. *Inform the enquiry based on two perspectives: a) participatory developed indicators and b) theoretically derived propositions (hypothesis) challenging fundamental assumptions underlying the expected success of the tripartite incubator modality.*

Degree of achievement: This has been implemented through the Discussion Note 1 and will be finalized through Discussion Note 2. One limitation to the hypothesis testing approach is that acknowledging and discussing shortcomings in implementation strategies can be somewhat challenging.

Objective 5. *Facilitate knowledge sharing of experiences for up-scaling successes across the six incubators (UniBRAIN Output 3).*

Degree of achievement: Since few actual implementation activities have been conducted by the AIICs, information relevant for up-scaling is still lacking. Data and conclusions regarding the establishment phase are available and will be published and discussed as a subsequent DN when knowledge about the performance in the implementation phase is also available.

Objective 6. *Support partners in articulating and internalizing business thinking in the academic sphere, e.g., the business model and value chain concepts.*

Degree of achievement: The study has contributed to this objective through an open discussion with partners during field visits and partnership meetings. ABI-ICRISAT and PanACC is highly involved in achieving this objective and the focus has been on business modelling for the incubator. A more overall strategic perspective on the AIICs' role and the operationalization of the organizations seems to constitute a challenge and may become a barrier to long-term sustainability.

Objective 7. *Contribute to enhancement of the tripartite incubator model and contribute to communicate UniBRAIN experiences to a broader audience.*

Degree of achievement: Due to the prolonged establishment phase we have not yet published experiences or results from the programme, but we are ready to do so once the activities are initiated on the ground.

It is important to emphasize that the study is not an evaluation activity. The proposed activities fully depend on the acceptance and collaboration of the AIICs and should be seen as an independent third-party contribution that must add value to the incubators by supporting project implementation.

The general conclusion is that the study has contributed positively to the programme development, although with a somewhat different focus than originally foreseen in the proposal due to the prolonged implementation of the programme.

Overall conclusion

The implementation of the study has been successful, primarily by contributing to an ongoing discussion of experiences across the AIICs. A good sense of ownership, trust, and rapport has been established between the researcher and the AIICs. The outcomes outlined in the initial proposal have been slightly modified in collaboration with the UniBRAIN facility coordinators. The changes primarily simplified the communication process to avoid creating unnecessary demands on the time of the AIIC partners. According to the planned output, one Discussion Note is still in the process of being finalized and a third has not been initiated due to the prolonged implementation of the programme and difficulties in obtaining information on the curriculum development process. These Discussion Notes will be finalized during the next phase as the related data collection can be finalized.

Recommendations for next phase of the study

- Face-to-face interaction is a very important means of communication and the primary way of engaging in a contextualized discussion with the AIICs partners, but a more pro-active way of getting the AIICs to articulate their knowledge needs has to be identified
- One way to do this could be to provide the AIICs with a shorter Discussion Note prior to each visit and ask them to convene a workshop to discuss the topics (topics should be identified by the AIICs themselves)
- Future consultancies should only rely to a limited degree on data collaboration with other partners, and should be designed to ensure that outputs are not too dependent on such interaction

Appendix 1: Documents and presentations

Published

- Hjortsø, C.N. and A. Totojani (2013). Report to the UniBRAIN AICs (Discussion Note 1). Presented at the Partnership UniBRAIN Partnership and Incubator Committee Meeting, 28 Jan - 1 Feb, 2013, Nairobi – Kenya.
- Hjortsø, C.N. (2013). Presentation of Discussion Paper 1. Presentations held at Unibrain Partnership meeting in Nairobi 28 January – 1 February 2013.
- Hjortsø, C.N. (2014). Experiences from the AIC incubatee selection process. Presentations held at Unibrain Partnership meeting in Lusaka 10-12 February 2014.
- Hjortsø, C.N. (2013). Presentation made at the UniBRAIN Steering Committee meeting in Accra, Ghana, 23 November 2013.

Forthcoming and planned publications

- Hjortsø, C.N. (2014). Lessons learned from the UniBRAIN AIC establishment phase (Discussion Note 2). [in prep.].
- Hjortsø, C.N. (2015). Experiences from the Unibrain AICs' incubatee selection processes (Discussion Note 3). [in prep.].
- Hjortsø, C.N. (2015). Barriers to the UniBRAIN AIC establishment (Discussion Note 4). [in prep.].
- Alexander, I. and C.N. Hjortsø (2015). Lessons learned from the Unibrain curriculum development process (Discussion Note 5).

Appendix 1: List of visits

Period	Location	Organizations visited	Participats
20-21 February 2014;10-13 February 2014	Lusaka Nairobi	Unibrain Partnership Meeting UniBRAIN-AgBIT UniBRAIN-SVCDC	CNH
9-24 January 2014	Lusaka Kampala Kampala Nairobi	UniBRAIN-AgBIT UniBRAIN-CURAD UniBRAIN-ABP UniBRAIN-SVCDC	CNH, BH
2-15 December 2013	Nairobi Kampala Kampala	UniBRAIN-SVCDC UniBRAIN-CURAD UniBRAIN-ABP	CNH, Ian Alexander
17-23 November 2013	Accra	Unibrain Steering Committee meeting UniBRAIN-CCLEAR	CNH
3-10 July 2013	Accra	UniBRAIN-CCLEAR	CNH
28 May-7June 2013	Nairobi Kampala Kampala	UniBRAIN-SVCDC UniBRAIN-CURAD UniBRAIN-ABP	CNH
30 April-10 May 2013	Nairobi	UniBRAIN-SVCDC	CNH, Ian Alexander
27-30 January 2013	Nairobi	Unibrain Partnership Meeting	CNH
11 November-2 December 2012	Nairobi Kampala	UniBRAIN-SVCDC UniBRAIN-CURAD	CNH, Anika Totojani

	Kampala Lusaka	UniBRAIN-ABP UniBRAIN-AgBIT	
1-12 October 2012	Accra	UniBRAIN-CCLEAR	CNH

Appendix 2: Persons interviewed during visits

UniBRAIN facility	
Mr. Ralph von Kaufmann	Facility Coordinator (2010-2013)
Mr. Alex Ariho	Facility Coordinator (2013-)
Ms. Pia Chuzu	Programme Officer
Mr. Jean-Claude Bidogeza	Post Doc
Dr. Irene Annor-Frempong	Project director
UniBRAIN-SVCDC	
Mr. Julious Mutundu	Incubator manager
Dr. Willis Owino	Incubator manager (2013)
Mr. Henry Oketch	Incubator manager (2013)
Mr. Alex Nyago	Marketing director
Dr. Daniel Sila	Prof, Head of dept.
Prof. Christine Onyango	Head of dept. Food and Technology, Dean
Dr. Henry M. BWISA	Full professor of entrepreneurship
Dr. Felister Wambugha Makini	Deputy Director Outreach & Partnerships
Ms. Stella Matere	KARI Research Officer
Dr. Micheal Makokha	CEO, Farming Support International (FASI)
Mr. Peter Okutoyi	CEO, Agritrace
Mr. Kepha B. Rinsyi	Director Finance & Operations, Agritrace
Dr. Fred Oduke	Director, Agritrace
UniBRAIN-CURAD	
Dr. Apollo Segawa	Incubator manager
Mr. Joseph Nkandu	NUCAFE, Acting Executive Director CURAD (2013)
Mr. Deus Nuwagaba	CEO Nucafe
Mr. Mowonge David	Deputy Executive director, NUCAFE
Mr. Moses	Client Development officer SMEs
Mr. Julios	Client Development officer Interns
Prof. Samuel Kyamanywa	Dean, Makerere University, College of Agriculture and Environmental Science
Dr. James Ssebuliba	Senior lecturer, Makerere University, College of Agriculture and Environmental Science
Dr. William Ekere	Agribusiness and Natural Resource Economics
Dr. Gabriel Elepu	Head of Dept., Agribusiness and Natural Resource Economics
Dr. Frank B. Matsiko	
Dr. Georgina Hazina	NARO-Coffee research institute (COREC)
Dr. Patrick Kucel	NARO-Coffee research institute (COREC)
Dr. Patrick Wetala	NARO-Coffee research institute (COREC)
Mr. Gerald Katabazi	Volcano Coffee-Uganda
UniBRAIN-ABP	
Mr. Atukunda Joshua Karaire	Incubator Manager
Dr. George B. W. Bazirake	Dean, Kyambogo University; CEO, Frevasema
Mr. Atuheire Korinako Godfrey	CEO, Biodegradable bags, UIRI
Mr. Alex Ariho	CEO, Excel Hort Researchers
Prof. Jacob Oyogi	Dean, School of Management and Entrepreneurship, Kyambogo University
Mr. Duncan Kimani Muturi	CEO, Ecofriendly - Banana Textiles
Mr Vianney Tumwesige	CEO, Renewable Heat
UniBRAIN-AgBIT	

Mr. Mwanamambo	Incubator Manager CEO, Frontier Development Associates
Mr. Gulam Banda	CEO, Frontier Development Associates
Dr. Moses Mwale	Zambia Agricultural Research Institute
Dr. Alice Tembo	Natural Resource Development College-Lusaka
Mr. Denny Sichula	Natural Resource Development College-Lusaka
Dr. Mick Mwala	Dean, School of Agricultural Sciences, The University of Zambia (UZ)
Dr. Benson H. Chishala	Senior Lecturer, UZ
Dr. Njapau	NISIR
Prof. Olusegun Adedayo Yerokun	Dean, School of Agriculture and Natural Science
Mr. Mukombo J.Tambatamba	Director, National Technology Business Centre
Mr. Bright Chalwe	Technologist (TT), National Technology Business Centre
Mrs. Kalobwe Chansa	Manager, Enterprise Department, ZDA-Lusaka
Mrs. Anastazia Muleya	Enterprise Development Officer, Enterprise Department, ZDA-Lusaka
UniBRAIN-CCLEAR	
Dr. EK Adu	Incubator Manager, Senior Researcher at Council for Scientific and Industrial Research (CSIR) - Animal Institute
Mr. Gordon Chan	EWB researcher
Dr. Esther Marfo-Ahenkora	Senior Researcher, CSIR
Dr. Charles Domozoro	Senior Researcher, CSIR
Mr. Vincent Ansah Botchway	Senior Researcher, CSIR
Dr. Akwesi Mensah-Bonsu	Senior lecturer, Dept. of Agricultural Economics and Agribusiness at the University of Ghana (UG)
Dr. Irene Susana Egyir	Senior lecturer, Head of Dept. Agricultural Economics and Agribusiness, UG
Dr. Boniface B. Kayang	Head of Dept. Animal Science, UG
Prof. John Ofosu-Anim	Dean, Faculty of Agronomy, UG
Mr. Jonas Osafo-Adamu	CEO, Humbeg Farms
Mr. Roland Kanlisi	Country Director, Heifer Ghana
Mrs. Margaret Sumah	Ministry of Food and Agriculture
UniBRAIN-WAARI	
Mr. David Mather	Incubator Manager
ANAFE	
Dr. Aissétou Dramé Yayé	CEO
Mr. James Aucha	Programme officer
Other organization	
Mr. Ian Lorenzen	AfricaGrowth
Mr. Jonni Kjelsgaard	CEO, AfricaGrowth
Prof. William Kyamuhangire	Food Tech Incubator, Makerere
Iliana Lindeberg	Global Business Link, Kampala, Uganda
DANIDA	
Mr. Lasse Møller	Programme Responsible