

Application

A study of an ICT-platform supporting diaspora entrepreneurship and enterprising targeting the countries of origin.

The application concerns a study on content and technology for an ICT-platform DiasporaLink, “Network for Transnational Diaspora Entrepreneurship as a Development Link between Home and Residence Countries”.

The study is made by DSV; Stockholm University, department of Computer and System Sciences with SPIDER, focused on ICT for development, with project team leader associate professor Christer Magnusson and professor emeritus Bengt Henoch. Contributions from teachers at Kista Folkhögskola and as experts professor Klaas Molenaar and MBA Sennai Mebrathu (see attached CV’s).

The intention is initially to develop the ICT-platform for the migration corridor Ethiopia/Sweden, followed by involvement from Ethiopian diaspora in Germany and the Netherlands. The ultimate goal is to develop a global platform, that can be applied and marketed in migrant communities, make active contributions to the migrants' integration and to the development in their countries, as well as connect to various EU and international programs.

Background

In Sweden as well as internationally there has for the last years been a growing trend to recognize and facilitate diasporas important role in the development of their home countries. This has resulted in different programs to engage diasporas as investors, mentors and entrepreneurs and in political actions to facilitate diasporas engagement through promoting “circular migration”.

We focus in particular on transnational diaspora entrepreneurs, engaged in North/South enterprising and trade linking countries of residence and origin in what we call migration corridors.

Transnational diaspora entrepreneurship has an enormous potential for social transformation in both home and host countries. This potential is not fully realized because of lack of transnational support, because of restrictions from regional support agendas and because of weak transnational team building.

Institutional programs to promote entrepreneurship, business start-up and self-employment are since long time seen as instruments for development, employment and growth and implemented in most EU-states and frequently . in neglect in ethnic minorities. Usually programs for diasporas entrepreneurship and for entrepreneurship in developing and emerging economies are seen as remedies for unemployment with a focus on self-employment and necessity entrepreneurs. Such programs also usually lack trans-national links and are managed by institutions and organizations with different and unconnected agendas. Thus support for cross-border entrepreneurs require new tools for cross-border linking and support.

Linking entrepreneurship in the diaspora and home countries face special problems. Transnational diaspora entrepreneurs must combine very different institutional and business environments, especially in connecting highly developed and developing countries. This difference in environments, requires an effective link, a North/South link.

Such an effective North/South link should facilitate and support:

1. Linking entrepreneurs, mentors and investors.
2. Learning and tuition supporting the cooperation-formations and based on proven experience in tutoring and initiating diaspora North/South business and trade.
3. Information on financial and business development services for North/South startups.
4. Support information and transaction services, related to finances, administration and legislation and including also lending, guarantees and regulated reporting.

The rapid development of the information society holds promises for ICT-solutions as a strong facilitator and supporter of North/South linking entrepreneurs, mentors and investor.

Selective information retrieval is increasingly based on Semantic Web. Semantic Web provides better possibilities to deliver content that is more relevant for the reader and to integrate various data sources delivering information difficult to access.

Social media such as Facebook, Twitter, LinkedIn and YouTube connect to different communication media such as internet forums, blogs, micro blogs, wikis, images, video, etc., and based on a range of tools, software and platforms. The importance of social media and networking is also apparent from the comprehensive range of literature and symposia presenting strategies for how to best use social networks in marketing, policy, campaigns and the mass media. The last year's Arab spring has demonstrated a well thought-out media strategy: scheduling in Facebook, Twitter for coordination and YouTube for publicity.

Web-based learning, has grown, especially in the higher education sector. In 2009 every fifth student at Swedish universities and university colleges was in whole or in part using net-based distance education. One challenge for e-learning is to follow up that the students have absorbed the curriculum. This is in particular true, when e-learning is applied to transnational diaspora entrepreneurship, where the background and motivation is very diverse. One solution is to create a tutoring and learning package that targets entrepreneurs and mentors, giving mentors a follow-up role. Web-based learning is mostly based on learning platforms, which integrate web-based functions of learning, such as: bulletin boards, discussion forums, chat, wikis, blogs and e-meetings. The challenge is to provide opportunities for communication between teachers and students in real time.

"Cloud computing" is rapidly emerging and involves large scalable resources such as processor power, storage, and features are provided, such as services on the Internet to small users who do not need to have the technical know-how or control of the infrastructure.

Some current trends in the information society should be especially highlighted:

- Media such as TV, telephones, computers, Ipad, etc become more integrated

- More complex and individual features based. on the "Semantic Web" methodology
- Increased quantity of offered information based on leaving digital traces
- Fuzzy boundaries between marketing campaigns and social media
- Spreading out of the computer and the service capacity based on cloud technology

In order to give the study a clear implementation base the study will contain a case study will be made for the migration corridor Ethiopia/Sweden with an ambition to involve also Ethiopian diaspora in other EU-countries.

Case study Ethiopia

In the process of preparing an implementation of the DiasporaLink ICT-platform in the migration corridor Ethiopia/Sweden efforts have been made to review the conditions and possibilities in Ethiopia and Ethiopian diaspora.

Ethiopia is one of the poorest countries in the world with an estimated GDP per capita of \$ 1100. However an industrial production growth rate of 9.5% ranks Ethiopia (CIA 2011) as No 17 worldwide. Ethiopia has a policy to boost value-added export and based on an official study "Ethiopian Textile & Textile Garment and Leather & Leather Products. Sub-sector Performance Problems" the Ethiopian textile and garment and leather & leather products sub-sectors are supported based on their priority attention in the Industrial development strategy. In 2011 Ethiopia as closed an agreement with South Korea to develop Ethiopian textile industry.

Different trade organizations have been organized to support exports such as: the Ethiopian Women Exporters' Association(www.womenexporters.com), Ethiopian Women Exporters' Association (www.etwea.org), the Ethiopian Women Exporters' Forum, Ethiopian leather and textile Associations. The sectors are also being represented in trade and fashion shows e.g. Sweden and US. Individual Ethiopian enterprises are also presented on e-commerce sites such as www.alibaba.com

Most activities are in the urban regions e.g. around Addis Ababa and there is a risk that village based craft is left behind. However as shown by (Dercon and Hoddinott,2005) rural and urban spaces are wrongly regarded as "separate" in both development theory and practice and there are myriad links between them; forming trading Links to Market Towns in Ethiopian Villages. This should be seen as an embryo to network of trading posts connecting rural and urban regions.

Ethiopia has a long history of endemic craftsmanship and textile production. Tightly intertwined with the nations heavy reliance on agriculture, domestically grown cotton has for centuries been used in the design of a unique Ethiopian style and regional fashions. Distinctive Ethiopian patterns and garments have been carried down and developed through generations and have managed to survive in an increasingly connected world. Despite, or maybe because of, this long history, the Ethiopian textile as such has not caught up with international industrialization but remains to a large extent in the hands of small guilds spread across the country, primarily in traditional cotton weaving regions. Here, fabrics are woven, sometimes pieces are sewn and sold further down the value chain where individual traders buy in bulk to sell on to retailers in the larger cities.

Ethiopia has one of the largest diaspora populations in the world. The exact number of the Ethiopian diaspora is not yet known, but it is widely believed that over half a million Ethiopians live in North America and Europe (Lyons 2006). The Ethiopian diaspora remittance in 2010 was estimated at 387 million USD (World Bank 2010). In Sweden the Ethiopian diaspora is 25 000 It should also be said that Ethiopian diaspora has a long history in North America and Europe and is thus well established and has a variety of skills

In an effort to mobilize Ethiopian diaspora as a link, promoter, initiator of exporting Ethiopian small businesses an announcement was made on some Ethiopian diaspora international web-sites with a purpose to form a working team. The result is very encouraging and 17 people have responded so far with an expressed will to team up:

- 5 in Ethiopia representing business development, ICT professionals, village development, export trading etc
- 1 in Sweden: Sennai Mebrathu, Swedish citizen, MBA, trading experience with Ethiopian cotton, international background. See attached CV.
- 5 from NL, UK representing business development, trading, diplomacy etc.
- 1 from Germany representing a NOKIA project to use SMS to inform small farmers on market and prices. Specifications are being exchanged with the objective to interface.
- 5 from North America, Australia representing trading, ICT professionals, e-business, small business etc.

It is strongly suggested that the suggested study on the DiasporaLink ICT-platform is complemented with an active collaboration with mentioned Ethiopian working team and especially to give Sennai Mebrathu an active role in the study and to search active collaboration with the NOKIA mobile project. The specific objective is to direct a pilot specifically Ethiopian cotton handicraft.

Concept

The basic concept is to create a technology provider, that on a national or organizational base and on agreed terms provides an ICT-platform which is accessed from the contracted partner's ICT-site as an added and integrated service. The contracted partner will be the content provider as regards their use of the ICT-platform. Thus the technical ICT-platform is managed and maintained centrally, while the content is managed on a national or organizational level. The institutional form will be discussed with collaborators and sponsors.

The four services provided are:

1. A meeting place, where entrepreneurs, mentors and investors e.g. through a blog can add thoughts and ideas, and where the individual posts inserted in a blog directory, which by means of a search engine structured according to Semantic Web methodology, searchable as a search profile posted by prospective contractors, partners or mentors. The aim is to establish cooperation-formations around a proposed business and business opportunity.
2. A learning and tuition e-platform supporting the cooperation-formations and based on proven experience in tutoring and initiating diaspora North/South business and trade. Offered is support for entrepreneurship, business and professional development in the form of Web-based knowledge-building, which integrates Web-based functions of learning, such as: texts, bulletin boards, discussion forums, chat, wikis, videos, and

blogs. The training program is modular with a qualifications to pass from one module to the next. Mentors are supported in their mentoring role.

3. A resource data bank containing North/South links between financial and business development services for North/South startups. Most of these resources are regional and there is need for a resource bank, which permits the linking of regional resources to specific transnational projects. Such a searchable resource base will be developed in cooperation with established global networks for microfinance, credit and business development and based on questionnaires and interviews .
4. A set of information and transaction services, related to finances, administration and legislation and including also lending, guarantees and regulated reporting a serving diaspora transnational business and trade. Based on cloud technology some specific financial services already exists and with future increased bandwidth, the variation of services will expand, at the same time as equipment and skill requirements of the users is substantially reduced.

Formulation of problem, objective and expected result

Problem to be analyzed and solved

Entrepreneurship and support to self-employment is an established method to support self-employment in developing countries and in diaspora communities. In both cases the support is usually addressing a “village economy”. A better effect should be possible if supporting resources in both ends of a migration corridor where linked. The supporting resources are mostly regional or national, e.g. ALMI/IFS and microfinance in Sweden and ILO and microfinance in different developing countries. The study aims at analyze the problems as shown in the corridor Ethiopia/Sweden, demonstrate a solution based on interviews and trust building for corridor actors and test the solution on a prototype ICT-platform.

Project deliverables and expected results

- A survey of the entrepreneurial temperature (innovation system) in the corridor Ethiopia/Sweden delivered by the expert team and collaborating organizations specified below.
- Specification based -on above survey- of an ICT-platform and demonstration of a prototype together with partners involved.
- A business and implementation plan

Conditions for obtained outcome and delivered output

DSV as the lead partner has a long experience in realizing ICT-projects and solutions together with ICT-industry and users and has through its department SPIDER – ICT for development – experience in ICT solution in developing countries.

The executing team has the combined knowledge and resources necessary to realize the set targets of the project:

- Bengt Henoeh, professor emeritus, JIBS, KTH
- Christer Magnusson associate professor DSV

- Klaas Molenaar, professor inclusive economy, chairman EMN, founder IntEnt
- Sennai Mebrathu, MBA

The executing team is supported by an advisory team of international experts:

- Shahamak Rezai, professor society and globalization, Roskilde University
- Ali Najib, professor Social and Economic Geography, Uppsala University
- Sonny Nwanko, professor entrepreneurship, University of east London
- Kathleen Newland, PhD, cofounder MPI, Washington DC

An important condition for outcome and output is a close contact with actors in the corridor Ethiopia/Sweden. This is clearly demonstrated in the section Case study Ethiopia and points to good possibilities to involve also Ethiopian diaspora in other countries. Support can also be foreseen through JIBS economy education at Addis Ababa University.

Support to corridor enterprising relies on linking and cooperation between finance and business development services in both ends of the corridor. An import output is the survey and model of such linking. This is reached through close cooperation with European Microfinance Network, Mix market and ALMI/IFS.

Background of partners

November 2010 Bengt Henoch arranged at Jönköping International business school an international seminar with the theme "Transnational Diaspora Entrepreneurship". North/South entrepreneurship and small business was identified as a potentially strong but not fully developed driver of development and wealth in both home and host countries. This and earlier contacts have resulted in a wide international network of corresponding and collaborating partners.

DiasporaLink, "Network for Transnational Diaspora Entrepreneurship as a Development Link between Home and Residence Countries", is an exchange program between fifteen universities and research institutes representing Sweden, the Netherlands, Portugal and UK in EU and Australia, Brazil, Chile, Mexico, South Africa and USA. The partners have running research programs on Transnational Diaspora Entrepreneurship, TDE, on ICT for development and on methods for Global Entrepreneurship Monitor (GEM). The partners are committed to TDE as a development tool and see the exchange program as the start of a global sustainable network on international research on Transnational Diaspora Entrepreneurship.

In Sweden the partners correspond and work with diaspora organizations such as Ghana Union, Svensk-Etiopiska Föreningen, Etiopier i Jönköping and also youth diaspora organizations such as SUM. To connect to diaspora entrepreneurship in Sweden we work with International Enterprises in Sweden, IFS, which protects and promotes migrant entrepreneurs through methods such as skill development through their 19 advisors in the ALMI network and through the shaping of public opinion.

In the study we will specifically collaborate with:

- Klaas Molenaar, (also board member of European Microfinance Network) at Haag university and SEON Foundation, the Netherlands a non-profit institution, working together with TriodosFacet founded IntEnt Foundation. The organizations are carrying out EU-funded research studies on ethnic entrepreneurship and implemented services for cross-border entrepreneurship. Together with Black Dutch is a social investment consulting company based in The Netherlands, that seeks to promote economic sustainability in developing economies in Africa & the Caribbean.
- Sennai Mebrahtu, Swedish Citizen, M.Sc. Entrepreneurship and Innovation, University of Luxembourg, B.Sc. International Business Administration and Economics, Södertörn University. Permanent team member
- MPI, Migration Policy Institute, USA an independent, nonpartisan, nonprofit think tank in Washington, DC dedicated to analysis of the movement of people worldwide. MPI provides analysis, development, and evaluation of migration and refugee policies at the local, national, and international levels. MPI is also hosting IDEA (www.diasporaalliance.org) promoting diaspora involvement in their home countries.
- Kista Folkhögskola as contact point to diasporas and as a potential site for entrepreneurship training

Realization of the study

To ensure a robust process, the study will be done towards one or several real application environments, with focus on migration corridors. Such a real environment for North/South trade, entrepreneurship and enterprising, where the industrial and developing countries are linked by diasporas, who want to promote trade and business with their countries of origin, ensures that development takes place with the participation of target groups, individuals and organizations in the diaspora and their home country.

For this study the corridors Ethiopia to Sweden will be focused as outlined earlier. As discussed with the Dutch partners the corridors South Sudan/ Ethiopia; Rwanda/ Burundi and Morocco to The Netherlands will be subject to projects based on the developed ICT-platform. Our US partners are exploring some corridors originating in Africa or Latin America.

The study is planned for six months duration and contains specific study objects in in the content and technology domain.

Content domain: Bengt Henoah and Executing team

Responsible for structuring the content in the four services. In order to have a concrete focus the content will in the study be based on findings from the corridors Ethiopia to Sweden. The study will contain the following three study items:

1. Structuring of a meeting place for linking entrepreneurs, mentors and investors. Specifically qualification criteria for entering the meeting place will be addressed. This part of the study will be based on questionnaires and follow-up interviews of members of the mentioned diaspora organizations and IFS. The South partners will be

reached through MFI's, business development services and higher education in Ethiopia.

2. Structuring e-based learning and tuition based on proven practice in initiating North/South diaspora entrepreneurship. Important issues are how the potential entrepreneurs can be taken through the curriculum with a continuous follow-up of motivation and realistic attitude. Especially the role of mentors will be explored and thus also tutoring support to mentors. It is assumed that the curriculum is modular and that there is a qualification procedure going from one module to the next. An important base is the experience of IntEnt (K. Molenaar, 2007, "Migrants in the Driver's Seat") and of the IFS/ALMI advisors.
3. Exploration of potential North/South links for financing TDE-startups. This will be based on e-based questionnaires and follow-up interviews with members of European Microfinance Network and Microfinance Information Exchange in Washington DC. Specific questions are forms of cooperation between North and South MFI's and forms and administration of added finance from investors and funding institutions. Important are MFI-based concepts and models for going from often inadequate microfinance to more sustainable financing supported through financial and banking institutions and investors

Technology domain: DSV

DSV will be responsible for developing the IT-service for DiasporaLink. The overall logic of the service is depicted in figure 1. The service will connect different stakeholders along a migration corridor and enable exchange of business ideas in both directions. It will also provide means for different types of transactions, such as financial and administrative. DiasporaLink will be designed to primarily serve three types of users: entrepreneurs, investors and mentors.

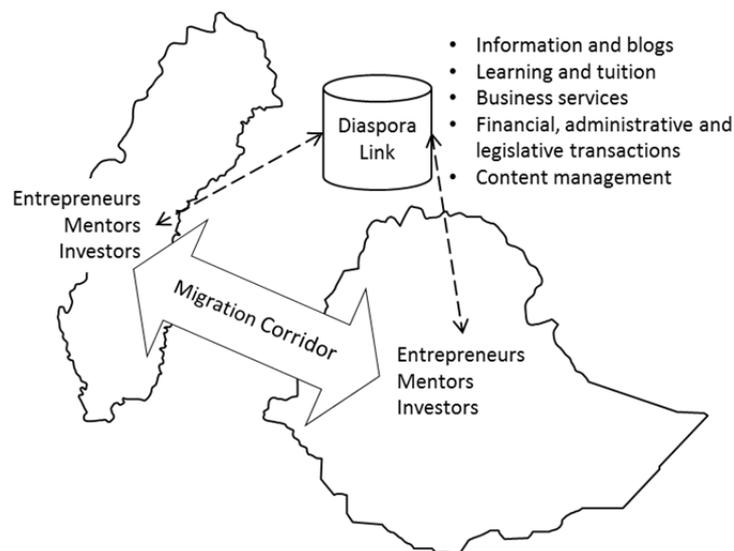


Figure 1. The IT-service DiasporaLink will connect entrepreneurs, mentors and investors on both sides of a so called migration corridor.

In this study, the goal is to engineer service requirements and to develop a prototype service. The prototype service will be used to demonstrate the concept and to evaluate the service requirements. The study will be conducted according to design science method and include the following steps:

1. Set-up of informational website for Diaspora.org. The content of the informational website will, apart from information about the initiative, include a blog and potentially some e-learning content.
2. Value modeling. High level service requirements will be identified using value modeling. The interaction between the three types of users will be formally described and the exchange of value will be clarified. The result is a value model which is used to engineer high level requirements and as a basis for developing a business model for the service provider.
3. User requirements. Initial user requirements will be collected through in-depth interviews with representatives from the three user types. The user interviews will cover several types of requirements including functional, organizational, technical, and financial and usability. The result is a requirements specification including initial design objectives for DiasporaLink.
4. Software evaluation. The assumption is that there are several standard applications available in the market that will fulfill most of the requirements for the DiasporaLink, such as content management systems with support for financial transactions or standard banking software with portal functions. These applications will be identified and evaluated against the user requirements. The result is a prioritized list of standard applications which could be used for designing the service.
5. Service design. A prototype service is designed to meet the user requirements. Ideally it is based on the standard application which best meets the requirements in step 3. Alternatively, a mock-up portal is developed to demonstrate and visualize how the service will look like. The result is a prototype service which demonstrates how the user requirements can be fulfilled.
6. Service evaluation. The prototype service is demonstrated to the stakeholders and evaluated against the design objectives. The stakeholders' input will be used to update the requirements specification. The result is a second version of the requirements specification, including revised design objectives.
7. Realization plan. A plan based on the second version of the requirements specification is developed for realizing the DiasporaLink IT-service. Preliminary, the roll-out of the service will be phased both according to content and to migration corridor.

There are some specific issues to consider when developing the DiasporaLink IT-service. First, language and content should reflect the localization of the user. Second, entrepreneurs and mentors should transfer through a qualification process. Third, content management should be carried out through a de-centralized organization. Fourth, the service could be accessed both through a stand-alone website and through a third-party website, such as an investor's website.

The study will be carried out by DSV in Kista and involve two researchers and one to two PhD students. The study will include in-depth interviews, demonstrations and evaluations and involve individuals and groups representing stakeholders. Telephone meetings and video conferences will be used to reduce travel. The work plan is estimated to four working months, see figure 2.

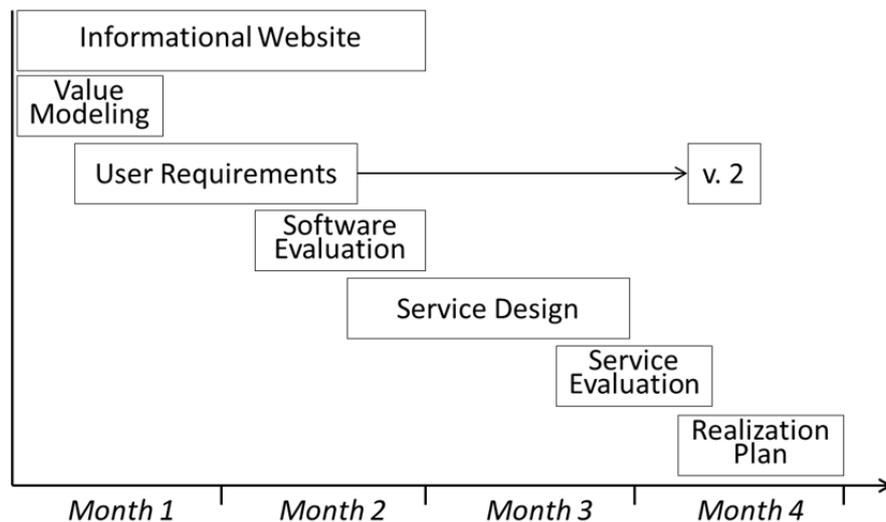


Figure 2. DSV work plan.

Internationalization domain:

The objective is to develop a global platform, that can be applied and marketed in migrant communities, as well as connect to various EU and international programs. Thus the study will connect to international programs in different ways:

1. Content contributions are expected from the DiasporaLink Network, “Network for Transnational Diaspora Entrepreneurship as a Development Link between Home and Residence Countries”, connecting fifteen universities and research institutes representing Sweden, the Netherlands, Portugal and UK in EU and Australia, Brazil, Chile, Mexico, South Africa and USA.
2. The SEON foundation together with other Dutch partners will actively contribute to the study through supporting activities in the Netherlands but also by some contributions to the Swedish study, especially concerning e-learning issues North/South linking of financial support.
3. Exploring cooperation possibilities with MPI and the Washington DC cluster IDEA, USAid, CGAP, GWU through a visit and joint workshop.

Sustainability and long term goals

- Linking Ethiopian diaspora and Ethiopian small industry and handicraft

The findings presented in Case study Ethiopia clearly indicate the it is possible to set up a sustainable service platform linking diaspora and home country. They also indicate good possibilities to involve Ethiopian diaspora in major EU-countries and in Canada and US.

An Ethiopian service platform is also strengthened by:

- Similar efforts and experience from our Dutch and US partners targeting Ethiopia
- A possibility to connect to a NOKIA mobile project in Ethiopia
- Agreement with Ethiopian official policy

-Long term goals

The ultimate goal is an international service and knowledge ICT-platform linking transnational diaspora entrepreneurs and related supporting services, but also serving international researchers in the area.

The form for such an ICT-platform is preferably a foundation and on result of the study will be a strategic plan of how to form and operate a foundation.

One important base is what is described under Internationalization domain, and specifically an international network of university research as described and the networks mentioned will be major tools in developing the Ethiopian diaspora site to a more global site.

Long term sustainability is also strongly related to the competence and knowledge to keep pace with edge ICT-technology.