Cross-border Entrepreneurship Collaboration Model for Socioeconomic Sustainability

Suwannit Chareen Chit, Nor Iadah Yusop, and Musyrifah Mahmod

School of Computing, Universiti Utara Malaysia, Malaysia, {chareen, noriadah, musyrifah}@uum.edu.my

ABSTRACT

The South East Asia (SEA) region is a melting pot of diverse culture and arts. This region is rich with local products which possess potentials to be marketed to a wider market. However, local entrepreneurs have limited access to financial aids and know-how to achieve this. In this paper, a model which fosters collaboration among local entrepreneurs within this region is proposed. This model is built upon three thrusts namely marketing, continuous knowledge sharing and technology transfer. Focusing on unique local products, this model can add to the value chain, improve the socio-economic activities thus resulting in a better quality of life.

Keywords: Sustainability, rural ICT, collaboration model.

I INTRODUCTION

The United Nations Industrial Development Organization (UNIDO, 2014) reported that some 75% of the world's poor live in rural areas. They generally depend on farming and agricultural activities. Such nature-dependent activities are susceptible to the instability of weather and soil conditions. In response to these situations, with the availability of vast local resources, the mobilization of such resources is deemed necessary for value creation and well-being of the rural people. A potential approach to facilitate the mobilization of resources is through rural entrepreneurship as suggested by Stathopoulo *et al.* (2004) via the support of Information and communication technologies (ICTs).

ICTs have the potential to change old and new forms of economic activities and have been recognized by the world as the nexus point for socio-economic development. This is evidenced in Pasha Centers Project in Kenya (doITinKenya, n.d) and Dwesa Project in South Africa (Pade et al., 2006). In these projects, ICT becomes an important mechanism for integrated service delivery to rural communities. ICT also facilitate the harmonious development socio-cultural, in institutional. economic and political aspects development sustainability. The similar goes to the rural dwellers in the South East Asia region.

Studies conducted on rural communities in Malaysia (Huda *et al.*, 2009) and in Nigeria (Achugbue & Anie, 2011) highlight the importance of ICT in enhancing the socio-economic well-being of the targeted community. This is in accordance with IFAD (2003) that posited the use of ICT in empowering the rural poor people and communities for their own development. In addition, IFAD (2003) also emphasized on the importance of participation, knowledge-sharing, as well as respect for diversity and culture in delivering ICT to the people so that it brings about the required change.

Malaysia, Indonesia and Thailand are nations within the SEA region that share similarities in terms of socio-economic processes, culture and lifestyle. Local entrepreneurs from these countries have a range of unique products that have been produced for generations. However, these products have always enjoyed local market penetration due to limited access to financial aids, trainings as well as opportunities to explore the larger market. ICT offers great potential for the rural communities in discovering opportunities for mobilizing the available resources at reasonable and affordable costs. These include collaborative efforts in knowledge sharing, technology transferring, and package labelling for socio-economic sustainability among the involved parties.

In exploiting the potential that ICT offers, this paper presents a model for cross-border entrepreneurship collaboration for socio-economic sustainability of rural community within the South East Asia region. The focus will be on the roles of ICT in enhancing socio-economic activities of the participating community in the region namely, Malaysia, Indonesia and Thailand. In pursuit of this, this paper brings together literatures associated with rural sustainable development and rural ICT projects sustainability and this is presented in Literature Review section. Later, in Section III, the proposed model is presented in accordance with the identified main thrusts identified based on literature and observations. Recommendations and concluding remarks follow in Section IV.

II LITERATURE REVIEW

A. Rural Entrepreneurship

Rural entrepreneurship is defined as the creation of an entity or organization in the rural environment which introduces a new dimension to local products, services and explores new markets by utilizing new technologies (Wortman, 1990). Over the years, rural entrepreneurship has gained tremendous research interest. A significant amount of research and development effort has been devoted to position the rural entrepreneurs in a competitive footing. These efforts include the provision of physical infrastructure, human capital development and supportive economic environment though a myriad of policies.

Stathopoulo *et al.* (2004) reviewed the process and contextual issues associated with the entrepreneurial phenomenon rural areas. In their study, it was discovered that rural entrepreneurship presents diverse opportunities while imposes different constraints on entrepreneurship development thus often alters the entrepreneurial outcomes. Similar studies were also conducted by Pade *et al.* (2006), and Cesaretti and Miso (2012). These authors have proposed an integrated framework that takes into account comparable factors to ensure sustainability of rural development as tabulated in Table 1.

In these frameworks, two important factors for rural entrepreneurs to have the opportunity to reach global market are the territorial assets and opportunity provided by ICT. The territorial assets include the exploitation and diversification of natural resources that take into account on the similarity of local production.

The territory is seen as a system of governance and localized technological externalities (Camagni, 2008). The key of sustainability of the territory is by ensuring the development of a local system with distinguished features in a long-term strategy. The territorial system has become the heart of various engagements of economic development activities focusing on production of specific dynamics of innovation and employment that strengthen the competitiveness of the entities in the territory. Socio-economic, cultural and environmental aspects of the territorial asset contribute to the sustainability of the territorial system.

Basically, ICT development in rural areas addresses the digital divide issues by providing opportunities such as the availability of networks access and the Internet in territorial system. These opportunities offered by ICT could be reflected as a vector of spatial dynamics (Cesaretti & Misso, 2012). The inclusion of ICT facilitates the government and territory management on complexity of weaving network in the rural areas and assistance on producing excellent products that include innovation in packaging, conservation techniques and quality control (Cesaretti & Misso, 2012). For example, the creation of a web portal as the vehicle to show greater visibility at a global area provides a valuable tool for the valorization of the rural area and of the local products. It also provides assistance in product promotion and incentives activities, and supports the exchange of expertise nationally and internationally.

Table 1: Comparison of Integrated Framework for Rural Development Sustainability

Author	Stathopoulo, Psaltopoulos	Pade,	Cesaretti & Miso (2012)
	& Skuras (2004)	Mallinson &	` '
	, ,	Sewry (2006)	
Social	social capital	• social/cultural	human capital (youth)
	• governance	 Institutional 	• security
	• cultural heritage (incl.	 Political 	equal opportunities in the territory
	valorisation)	 Technological 	health care system
			education and professional training system.
Physical	• location (about	 Technological 	natural resource
	accessibility)		environmental services
	 natural resources 		architectural assets
	• landscape		agricultural landscape
			geographical position and climate.
			• territorial and cultural assets (with the use of appropriate
			tools to manage the territorial system for rural vocation)
Economic	• investment on	Economic/fina	characterization and typicalness of the local production
	infrastructure (incl.	ncial	structural characteristics and level of specialization or
	transportation)	 technological 	diversification
	• business network (incl.		local financial system
	ICT implementation;		system of infrastructure and public services
	both formal and		system of economic and production valorization
	informal)		system of research and innovation the assets
	 operating technology 		accumulated in infrastructure and facilities, considered
			as a whole and for the resulting externalities.

However, the lack of advanced telecommunication infrastructure in the rural areas hinders the capability to support new ICT development thus creating a very tangible technical and financial barrier in the territories (OECD, 2001). To tackle the problem, excellence pole was proposed in France as an organizational innovation tool of the territory that is based on ICTs for governance sustainability. The proposed excellence pole has attracted other regions to implement it as an important driving force through the diffusion of technological knowledge for sustainable competitive development that retain the territorial cultural identity.

B. Socio-economic Sustainability

Over the past decade, rural poverty and socialeconomic sustainability have been recognized as major global concerns. Numerous projects and experiments have been carried out to improve the socio-economic standards of rural communities globally. Government-run programs have been initiated to alleviate poverty, while major financial institutions have been handing out micro-credit poorest. Non-governmental facilities to the organizations too have tirelessly advocated self-help amongst the rural poor whilst a handful of policies were also drafted to further provide greater resources to poverty relieve programs, and access to ICT, health and education. However, an elixir to address these concerns is vet to be found and many projects are striving to remain sustainable.

The concept of sustainability has been widely debated. Heeks (2002), and Jacob and Herselman (2005) stated that sustainability refers to prolonged provision of a specific service, while Pade *et al.* (2006) define it as a project which meets social, economic and other demands of both the present and future generations. Within the context of this literature, socio-economic sustainability is therefore generally defined as prolonged economic activities that affect social processes of specific community.

There are multiple factors which effect socioeconomic sustainability. While some authors such as Batchelor and Norrish (2003), and Van Belle and Trusler (2005) view sustainability from the perspective of financial, human, social and physical resources, others have stressed on the importance of participation and involvement from the communities (Pade *et al.*, 2006). The key to sustainability therefore is a holistic approach which considers the factors that affect sustainability and is built upon the pillars of socio-cultural, politics, institutional, technological and economic.

In South East Asia, poverty eradication programs have been carried out extensively. Through our observations, the programs carried out within this region are targeted mainly at the communities involved in agriculture, fisheries and cottage industry sectors. These include human capacity development through to the efforts to improve production and marketing of the by-products with the aims of improving the communities' quality of life. Further, we observed that most of these by-products are unique, and richly blended to the culture and skills of the each community. These by-products possess the potential and appeal to be marketed to other communities within this region.

C. Rural ICT Development

Rural communities particularly the rural young people, women, elderly and disadvantage groups still suffer from the lack of access to Information and Communication Technologies (ICTs). To reduce the gap in this sector, numerous programs were carried out both by the government and nongovernmental organizations. These efforts include the development of telecentres that facilitates access to the internet, rigorous content creation and human development programs to allow acquisition of new skills to access and benefit from the Internet.

Equipping rural areas with ICT can have several advantages. For example, the development of web portals can bring a greater exposure to the community and add value to local products or improve supply chains.

However, the success of these projects is strongly coupled with factors such as community financial support as well as the support from national and regional authorities. Another important factor that requires great attention is the involvement and cooperation of local actors, and understanding new business opportunities and needs of the local communities.

III CROSS-BORDER ENTERPRENEURSHIPCOLLABORATION MODEL

The SEA region is known for its rich culture and distinctive art making skills. This characteristic has deemed the products from this region to be unique in its own way. Through our observations, we believe that these by-products possess the potential to penetrate into a larger market. However, the local entrepreneurs who make and market these products face limited funding, training and development resources. Within the framework of this study, we propose a model which aims to improve the quality of life of the community in the region. This can be achieved, among others by ensuring their socioeconomic sustainability. The proposed model focuses on three main thrusts of socio-economic development namely marketing, technology transfer

and knowledge sharing. Each of this thrust is briefly explained below:

- Marketing Entrepreneurs, especially those from the remote regions of SEA often have minimal access to formal education, human capacity building exercises as well as access to ICT facilities. Within the framework of this model, we aim to create awareness and adoption of ICT tools to help these entrepreneurs to advertise and market their goods. We propose that an online platform is provided for the local entrepreneurs from the SEA region to market their products. This platform showcases the local products and allows a visitor to purchase the products. This indirectly presents an opportunity to the local entrepreneurs to earn more, thus improving their quality of life.
- (ii) Knowledge sharing A series of workshops to train the local entrepreneurs on product branding, package labeling and marketing will be held. During this event, we will facilitate collaborations among these entrepreneurs and potential investors. Also, through the online platform mentioned above, we also aim to document the manufacturing process and allow visitors to view how these goods are made. This allows knowledge sharing, as well as to preserve the manufacturing know-how of these local goods.
- (iii) Technology transfer During the knowledge sharing workshops, these entrepreneurs will also be given the opportunity to demonstrate the technology used and exchange their knowledge in product manufacturing as well as to promote their products to potential investors.

The proposed cross border entrepreneurship collaboration model is illustrated in Figure 1.

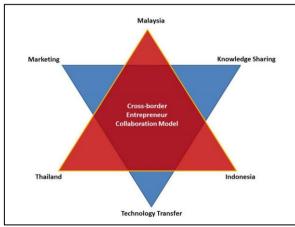


Figure 1: Cross Border Entrepreneur Collaboration Model

IV CONCLUSION

Local products from the SEA region face limited access to penetrate the larger market. While there have been efforts such as financial aids and local products promotion of initiatives, sustainability has been a major concern. In this paper, we propose a model that fosters collaboration between entrepreneurs in the SEA region. Focusing on delivering a platform to further promote and market the entrepreneurs' products, continuous learning through knowledge sharing and technology transfer, it is hoped that the socio-economic activities of the local entrepreneurs is sustainable, and leads to a better quality of life.

REFERENCES

- Abdullahi, S. A. (2012). Entreprenuership and Economic Growth: An Analysis of Impact of Public Policy on Entreprenuership Development in Nigeria, The Proceedings of the 2012 International Conference on Business and Management, 6 7 September 2012, Phuket, Thailand, pp. 440 461. Retrieved from http://www.caalinteduorg.com/ibsm2012/ejournal/043SME-SAAbdullahi-Entreprenuership_and_Economic_Growth.pdf
- Achugbue, E.I. & Anie, S.O. (2011). ICTs and Information Needs of Rural Female Farmers in Delta State, Nigeria, *Library Philosophy and Practice (e-journal)*. Retrieved from http://digitalcommons.unl.edu/libphilprac/448
- AsianStats (2013). Selected Basic ASEAN Indicators. Retrieved from http://www.asean.org/images/2013/resources/statistics/SKI/summary%20table.pdf
- Batchelor, S. & Norrish, P. (2003). Sustainable Information Communication Technologies (ICT): Sustainability. Retrieved from http://www.sustainableicts.org/Sustainable.htm
- Camagni, R. (2008). Regional Competitiveness: Towards a Concept of Territorial Capital. In *Modelling Regional Scenarios for the Enlarged Europe SE 3* (pp. 33–47). Springer Berlin Heidelberg. doi:10.1007/978-3-540-74737-6_3
- Cesaretti, G.P. & Misso, R. (2012). Sustainability of rural systems and Poles of excellence: the role of Information and Communication Technologies. In Mildorf, T. & Charvat, K. (eds) *ICT for Agriculture, Rural Development and Environment: Where we are?Where we will go?* Czech Centre for Science and Society Wirelessinfo: Czech Republic.
- dolTinkenya, (n.d). New ICT hubs to speed up ICT coverage in rural areas. Retrieved fromhttp://www.doitinkenya.com/index.php?option=com_content &view=article&id=1591:new-ict-hubs-to-speed-up-ict-coverage-in-rural-areas&catid=84:it-services&Itemid=461
- IFAD (2003). IFAD Side Event, World Summit on the Information Society Geneva, December. Retrieved from http://www.ifad.org/events/wsis/phase1/synthesis/
- Huda Ibrahim, Nor Iadah Yusop, Zahurin Mat Aji, Zulkhairi Md
 Dahalin, Osman Ghazali, Shafiz Affendi Mohd Yusof, Mohd
 Nizam Saad, Mohamad Amir Abu Seman, Azman Yasin, Mohd
 Khairudin Kasiran, & Rafidah Abd Razak (2009). Rural
 Communities' Information Needs and 'Portal Desa' Template,
 Proceedings of International Conference on Rural Information and
 Communication Technology 2009 (rICT'09), Institut Teknologi
 Bandung 17-18 June, pp. 100-105.
- Heeks, R. (2002). Failure, Success and Improvisation of Information Systems Projects in Developing Countries. Retrieved from http://www.sed.manchester.ac.uk/idpm/publications/wp/di/di_wp11.pdf
- Jacobs, S. J. & Herselman, M.E. (2005). An ICT-Hub model for rural communities. *International Journal of Education and Development* using ICT, 1, pp. 57-93.

- Moraa, H. (2012). Developing an ICT Hub Model for the Rural Tech Community in Kenya. Retrieved from http://www.ihub.co.ke/blog/2013/10/developing-an-ict-hub-model-for-the-rural-tech-community-in-kenya/
- OECD (2001). Information and Communication Technologies and Rural Development. OECD Publishing. Doi: 10.1787/9789264193079-en\
- Pade, C.I., Mallinson, B. & Sewry, D. (2006). An Exploration of the Categories Associated with ICT Project Sustainability in Rural Areas of Developing Countries: A Case Study of the Dwesa Project. Proceedings of SAICSIT 2006, 9-11 October 2006, Cape Province, South Africa. pp. 100 –106.
- Stathopoulou, S., Psaltopoulos, D. & Skuras, D. (2004). Rural entrepreneurship in Europe: A research framework and agenda. *International Journal of Entrepreneurial Behaviour & Research (IJEBR)*, 10(6), pp. 404-425.
- UNIDO (2014). Rural entrepreneurship development. United Nations Industrial Development Organization. Retrieved from: http://www.unido.org/en/what-we-do/poverty-reduction-through-productive-activities/women-and-youth-in-productive-activities/rural-entrepreneurship-development.html
- Van Belle, J. & Trusler, J. (2005). An Interpretivist Case Study of a South African Rural Multi-Purpose Community Centre. The Journal of Community Informatics, 1, pp.140-157.
- Wortman, M.S. (1990). Rural entrepreneurship research: An integration into the entrepreneurship field. *Agribusiness*, 6(4), pp. 329-4.