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CRITICAL ISSUES FOR E-LEARNING TELECENTRES IN SRI LANKA AND INDIA

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Summary

Telecentres are one of the most important initiatives to bridge the digital divide in developing countries but their impact on the local community differs due to a wide range of factors. Our study identifies crucial factors for successful organization of telecentres in Sri Lanka and India based on empirical case studies.

Telecentre case studies in Sri Lanka and India have been conducted in 2008, and included observations, interviews with users and owners and a SWOT- analysis of telecentres in relation to their objectives and target groups.

The following factors were identified as important and universally valid for successful telecentres: a) Ownership. The local community has to be involved in the design of the telecentre, b) Sustainability. A telecentre is a combination of technology and man power, where man power makes a big difference, c) Languages. Every telecentre has to accommodate to local languages. d) Education, literacy and media literacy. There is a need for both formal courses and less formal learning, e) Inclusion. All groups in the community should be supported and integrated in the telecentre activities. f) Vision and strategy. A telecentre needs to have a multiple purpose strategy that should be updated over time.

Introduction

The economies in India and Sri Lanka have rapidly grown in the last decade including an expanding ICT sector. Infrastructure has generally improved nationwide, but there still exists a gap between rural and urban regions. Telecentres have been mostly seen as means of addressing the digital divide by providing information access.

There has been great interest in using telecentres in India and Sri Lanka: the projects have been initiated by governments, the private sector, international donors, and community organizations.

One narrow definition of telecentre is that "…telecentre is a place that offers the public connectivity with computers and networks" (Roman and Colle, 2002).

A broader definition may be more appropriate: i.e. a telecentre is a public place where people can get a variety of communication services and whose aim is to benefit the community. The term *telecentres* is arguably out-dated, because of its implicitly narrow focus, and a broader term like *knowledge centres* or *information centres* may be more appropriate.

In Sri Lanka the eSri Lanka project was initiated by the Information and Communications Technology Association (ICTA) in collaboration with Intel in 2004.[i] 20 pilot telecentres named Vishwa Ghana Kendra (VGK) with World Bank funding, later became a national programme for constructing 1000 Nanasala. So far (16/03/2009), 585 Nanasala are set up by the Sri Lankan government. These telecentres are owned and run by rural community temples, community based organisations and NGOs. There are some other telecentres as well setup by Sarvodaya[ii] and private sector initiative but not at all a wide spread network like the Nanasala project.[iii]

The telecentre initiatives in Sri Lanka can be seen as a modern follow up to the successful *Free Education Scheme* introduced in 1944 in Sri Lanka, where the strive for universal access and gender equality, in the 21st century, has to include access to ICT facilities (Warnapala, 2009).

In India the majority of telecentres have been established as profit-making initiatives, by national organizations like Indian Tobacco Company[iv] (ITC) and Drishtee[v]. The relationship between the parent company and the telecentre manager may vary and they both may be working in a profit-making mode. A franchise business model is usually used in PM initiatives in which the franchisee pays a license fee and a deposit at the outset, and then an annual fee.

Only a minority of telecentres operate in a not-for profit mode: these are established either by NGOs or local government. Within this type, some projects may charge for services.

Telecentre initiatives seek to improve access to government services and to increase transparency and accountability (e-governance); some are more market and commerce-oriented (e-commerce); and some provide a combination of these services. Sectors commonly covered by services include agriculture, education and health.

Aim

The aim of this paper is to analyze and discuss critical issues for successful telecentres in Sri Lanka and India.

Previous studies

A high level of community participation and ownership in the operation and use of a telecentre has a major bearing on its success and sustainability; it has been recommended that "telecentre management need to develop an explicit participation strategy in the planning stages" (Roman and Colle, 2002). One of the three guiding principles proposed by M.S. Swaminathan Research Foundation (MSSRF) is that the provision of telecentres " is a people-centred programme based on community ownership. The community as a whole must endorse it" (MSSRF website[vi]).

However, participation will only work if there is a genuine demand and if people perceive the services offered as important and potentially valuable to them (Mozelius, Hansson and Kivunike, 2008; Mozelius, Hansson, Kahiigi and Ekenberg, 2008). As a matter of fact, much of the information available via electronic networks may not meet communities' needs for information and that which is available may have questionable content or be presented in forms that are not user-friendly. Furthermore, "telecentres tend to sell rather than to serve" (Roman and Colle, 2002)... "and needs analysis is sometimes done in a top-down fashion" (Heeks, 2005).

Access has been defined as "the economic, sociological and psychological factors that influence persons' opportunities to use the technologies" (Roman and Colle, 2002). Many projects have talked about community access as a general concept (Beardon, 2005), but it is important to recognize that there is often a high degree of socio-economic differentiation within villages; and that access to the centre doesn't always ensure access and involvement of more marginal groups.

Methods

Case studies were conducted at telecentres in India and Sri Lanka during 2008. A mixed methods approach was used; informal as well as more structured interviews were conducted at the site. Questionnaires were handed out, translated in the Sri Lankan cases into the mother tongues of Sinhala and Tamil and in the Indian case in the local language and Hindi. Observations of the activities and facilities were done, and in the Sri Lanka cases a team documented the visits and interviews with video camera. The table below summarizes cases and data collection methods used.

Table 1. Overview of cases

Cases	Data collection methods	Field studies by	Year
Telecentre in India -Kumhrava -E-Choupals	Interviews, Observations, Questionnaires in the local language and Hindi both to users and owners	Silvia Gaiani	2008
Telecentre in Sri Lanka -Buddhist telecentre in Balaharuwa -Hingurukaduwa telecentre -Etampitiya telecentre -Kandiyapitawewa telecentre	Interviews, Observations, Questionnaires in Tamil and Sinhalese to users	Niranjan Meegammana Peter Mozelius Henrik Hansson	2008

Results and discussion

In this section the telecentre case studies, in India and Sri Lanka are described, discussed and analyzed. All cases are situated in poor rural regions.

The Rural Community Telecentre in Kumhrava

The telecentre was launched in January 2006 by the Department of Journalism and Mass Communication of the University of Lucknow together with a local NGO, Bharosa. Infrastructures in Kumhrava were good enough to allow the establishment of a well functioning telecentre and some people in the village were computer literate. Kumhrava is a small village with a total population of 1674 (of whom 875 males, 799 females) and a literacy rate of 65%. 60% of the people are classified as below poverty line (BPL).

The objectives are to provide useful information to people in rural areas, and to act as an interface between the district government and ordinary people. Hardware Information kiosks have dial-up connectivity through local exchanges on optical fibre or ultra high frequency (UHF) links. The server is a Remote Access Server housed in the computer room in the house of the village leader.

The telecentre is non profit and mainly intended to provide information to the rural villagers for free. The services offered by telecentres comprehend:

- agriculture produce auction centres prices
- copies of land records
- on-line registration of applications
- information about government programmes
- on-line matrimonial advertisements
- email, photocopier

Access, gender and equitability

This initiative has been quite inequitable in that users are overwhelmingly male, in the higher socio-economic categories and in the young to middle age grouping. This is at least partly due to lack of relevance of the services to the poor. Women experienced barriers to accessing information. Above all, local families were reluctant to let female members join the activities.

The information and application services related to schemes for the socially and economically backward citizens have not received adequate attention. The rural poor do not perceive the telecentre as a platform for them to seek services from the government. Although some of the services are relevant to the poor there are preferred ways for them to obtain these services like face to face communication with government officials, radio and newspapers.

Impact

The villagers perceive a shift in corruption levels, especially in terms of access to information and reduced harassment by government officials; and government officials believe that the telecentre has improved their accountability. However this initiative has partly been a failure: it hasn't properly addressed the needs of rural poor and it's not financially sustainable.

E-Choupals from Aligarh district

ITC - Indian Tobacco Company- has established 5,100 computer kiosks (eChoupals) in 5 states covering 31,000 villages, serving 3.5 million farmers. ITC aims to have 20,000

Choupals in 15 states covering 100,000 villages by 2010. In Uttar Pradesh ITC has covered 44 districts.

In this specific case the research has been centered on Aligarh, a district in the western part of Uttar Pradesh with a population of 500.000. Being a railroad junction, Aligarh has developed into a commercial center of an agricultural region which produces wheat, sugarcane, cotton, corn, barley and millet. Despite this positive data, nearly 45% of the people are classified as below poverty line (BPL). A trained farmer is called a Sanchalak, and the Choupal is located in his house.

While the rural telecentre in Kumhrava is non profit, this telecentre model aims to be profit-making for ITC. As a demonstration of this, community involvement and ownership are pretty limited. Farmers do not pay for information, but may purchase inputs from ITC or market their produce via ITC. It appears that ITC's model creates a win/win situation for itself and its farmer clients. Services offered by telecentres include:

- Real-time information on commodity prices, local weather, news
- Customized knowledge on farm management and best practices
- Supply chain for farm inputs
- Direct marketing channel for farm produce (resulting in lower transaction costs, better value through traceability).

Access, gender and equitability

This initiative appears to be mainly servicing better-off male farmers, and has been criticized for not involving women and lower caste farmers (Gurumurthy, 2004).

Impact

ITC says that farmers are benefiting from its services thanks to lower transaction costs and technical knowledge for higher yields.

It says that farmers' output prices have increased by 20%, and that crop yields are also increasing. Much of the information is considered to be highly relevant, otherwise farmers would not participate, and ITC would not be able to make a profit. However, it is relevant primarily to commercially oriented farmers growing particular crops.

Telecentres in Sri Lanka

The four telecentres studied in Sri Lanka were Hingurukaduwa, Kandiyapitawewa, Balaharuwa, and Etampitiya. The table below presents questionnaire responses divided by age, gender and language for each site. In total 30 questionnaires have been completed. All visitors - youth between 9-24 years - were asked to fill in the questionnaire. We did not see any older people working with computers. The telecentres in the Balaharuwa case was run by Buddhist monks, the other telecentres were community facilities run by a family or young people from the village. Both Sinhala (19) and Tamil (11) speaking users were using the telecentres.

Table 2. Questionnaire responses from Sri Lankan telecentres

Telecentre	Responses	Age	Gender	Language
Hingurukaduwa	2	14,17	Female: - Male: 2	Sinhala: 2 Tamil: -
Kandiyapitawewa	4	9, 14,14,15	Female: 2 Male: 2	Sinhala: 2 Tamil: 2
Balaharuwa	8	14, 16,16,16,22,23,24,24,24	Female: 5 Male: 3	Sinhala: 8 Tamil:-
Etampitiya	16	10,11,12,12,13,13,14,14,14,14,14, 15,15,15,20,22	Female: 7 Male: 9	Sinhala: 7 Tamil: 9

The questionnaire consisted of four open questions about activities, services, problems and improvements at the telecentres.

Activities reported by the users were to use Internet in general, to learn specific programs (word processing), to get photocopies, to use Shilpa Sayura (digital content translated to local language), to get general knowledge about computers, to learn English, to teach students, chat, google, to obtain a certificate through computer courses, to obtain qualifications for a job and to adapt to changes in the modern world.

The main improvements suggested by telecentre users were:

1) **Better Technical infrastructure** (fast internet, new telecentres, more computers, photocopy machine, multimedia projector)

2) **Better non-technical infrastructure** (more space, more chairs)

3) **Improved Content** (computer books, different advanced courses)

4) **Economy and administration** (a salary for teachers and staff, Nenasala staff qualification)

Conclusions

Based on our field studies in India and Sri Lanka we found that the following aspects were important for successful telecentres:

a) *Ownership.* The local community has to be involved in the design of the telecentre right from the conceptual stage. If the telecentre becomes an integral part of the community it serves and if the community has a sense of ownership of it the probability for success will definitely increase.

b) *Sustainability.* A telecentre is a combination of technology and man power, it requires a high level of investment and a substantial and steady income to cover the costs and to generate a profit. In poor rural areas low incomes and low awareness of potential services may make it difficult to generate a significant income from charging customers. Therefore different financial models are needed.

c) *Languages.* Every telecentre has to accommodate to local languages. This is a challenge in particular in a country like India which has 22 officially recognized languages and approximately 2000 different dialects[vii]. In Sri Lanka the Shilpa Sayura project has provided content in local languages which is extensively used and appreciated. The importance of English cannot be underestimated for learning as well as in daily communication.

d) *Education, literacy and media literacy.* Not every user is competent or comfortable enough using a telecentre. There is a need for both courses and informal learning introducing basic ICT and language skills. In India the lack of literacy is another obvious barrier. Literacy rates among women are in India well below those of men. Sri Lanka, on the

other hand, has the highest literacy rate in Southeast Asia, women included, but still improvements are needed in order to reach the goal of access for everyone.

e) Inclusion. In India lower castes and women may find themselves excluded. In Sri Lanka the conflict between Sinhala and some Tamil groups calls for special attention. All these groups as well as disabled people should be integrated in the telecentre activities.

f) Vision and strategy. A telecentre needs to have a multiple purpose strategy that should be updated over time. Different stakeholders have different needs and abilities. For many people basic computer training could be the stepping stone for personal development and improved quality of life. Therefore a telecentre needs to provide different levels of activities to further individual competence and career development.
If telecentres successfully tackle the issues a-f outlined above, their impact on development in rural areas will be substantial.