Developing and Transforming Telecenters as e-learning Training Centers for the Community: The Malaysian Experience.

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Abstract: - Telecenters in Malaysia was established to assist the government in bridging the digital divide between the urban and the rural communities. There are currently more than 2000 telecenters in Malaysia. These centers are equipped with computers and access to the Internet with the aim of providing the community with access to technology in order that they become aware of the importance of technology as a tool to search for information and how it can add positive values and change their lives. This study is based on a research developed to understand, investigate and evaluate the role of telecenters as agents of transformation in assisting the government to achieve its aim to become a k-economy and a k-society country. This paper reports on the use of telecenters for e-activities purposes and concluded with suggestions on how telecenters can become a catalyst for e-learning training centers.

Key-Words: - e-learning; e-activities; telecenters; Malaysia; digital divide

1 Introduction
The Malaysian government has been making innovative and rapid progress in achieving its 2020 missions which includes developing and providing access to ICTs in the country. This is evident in the government’s initiative in providing the necessary environment to empower the people in ICT through various innovations in computer and technology. The National Innovation and Technology Center (NITC), which is the apex ICT body in Malaysia, has been established to assist the government’s in formulating and achieving its ICT agenda. Therefore, The NITC Strategic Agenda has been formulated focusing on five key thrust areas to enable the country to “migrate to the e-World of the new millennium”. The five key thrust areas include E-Community, E-Public Services, E-Learning, E-Economy, and E-Sovereignty.

According to Asirvatham, Kaur, & Abas [1], the development of e-learning in Malaysia started during the pre e-learning era when the Educational Technology Division was set up by the Ministry of Education in 1972. In fact, in the second phase of Vision 2020, which is under the 9th Malaysia Plan (2006-2010), one of the main agenda is to build world-class human capital [2]. This clearly calls for emphasis on education. The increase in demand for higher education has propelled the growth of e-learning in Malaysia which are being undertaken mainly by universities, colleges and business enterprises. Both formal and informal education programs are being offered using the e-learning mode. The main players comprised private and public institutions of higher education as well as local and multinational corporations. For instance, Open University Malaysia (OUM), which is Malaysia’s first open university is the main academic institution that leverages on e-learning to deliver its programmes. Other institutions that embraces e-learning in total after OUM includes Multimedia University (MMU), University Tun Abdul Razak (UNITAR) and Universiti Pendidikan Sultan Idris (UPSI). Furthermore, the rapid growth of web-based technologies and the high usage of the Internet have made teaching and learning via the Internet, or e-learning, more viable in recent years. Raja Hussain [3] points out that the increase in the demand for higher education has encouraged many institutions in Malaysia to plan for the incorporation of e-learning in their institutions. The initiatives are progressing rapidly and is guided by the Ministry of Education's strategies to enhance the use of ICT in e-learning [4;3]. Currently, many universities and educationally driven-based industries have set up portals and some form of e-learning platform to offer e-learning either as teaching aids to support conventional teaching approach or as a teaching medium for long-distance or off-campus programs [5].

With e-learning opportunities, it can be concluded that some kind of platform has been opened
up for adults, especially, to pursue education anytime and anywhere they want at their convenience. In addition, geographical or physical constraints are no longer an issue since access to learning via the Internet has made it possible for adult learners to enroll in any courses at any universities where there is availability of e-learning opportunities. One of the places for adult learners, especially for those in the rural area to access the Internet is through the community centers known as telecenters. The next section provides a brief review of telecenters in Malaysia.

2 Telecenters
Telecenters in Malaysia are administered by the government and several government appointed agencies and organizations in order to help the government achieve its aim in bridging the digital divide in Malaysia. Currently, there are more than 2000 telecenters in Malaysia. Telecenters is the focal point to help the government achieve its aim in transforming the country into a k-economy and a k-society country. Telecenters are equipped with facilities such as computers, access to the Internet, scanner, printer and other basic technological facilities to provide the community with access to technology in order that they become aware of the importance of technology as a tool to search for information and how it can add positive values (socially, politically and culturally) and change their lives. In addition, many program can be conducted at telecenters especially for the disabled, senior citizens, mikro business owners, single mothers, youth and the poor using technology. Telecenters also function as centers to coordinate, supervise, plan and administer activities which have been planned by the government and appointed government agencies, not only in relation to ICT activities but also other activities aimed to improve the lives of the community. One of the activities focuses on building human capital.

3 IT Courses and Training at Telecenters
Although telecenters conduct some IT courses and training, there are setbacks and limitations. Firstly, these courses and training are on ad hoc basis because they are conducted only when there is ‘demand’ or request, availability of trainers and the number of participants. Secondly, only basic IT courses and training are conducted such as MS Word, MS Office (Power Point), basic Excel and other basic courses. Since the telecenters function only as centers to conduct and coordinate activities which are centrally planned, the telecenters supervisors do not have the authority to give out certificates to participants who attend the courses and training. Finally, in some telecenters the number of participants who signed up for the courses are small, hence, the participants are paid to encourage them to attend the IT courses or training. These limitations and set back certainly hindered the process of transforming telecenters into the catalyst for e-learning training centers and as agents to help develop and build human capital.

3 The Study
A study was conducted with the main aim of developing a roadmap in order to help telecenters become agents of transformation in assisting the government in achieving its aim to become a k-economy and a k-society country. The objectives of the study are to:

1. understand the telecenters role as relevant agents to the community’s needs in line with the government’s transformation process.
2. suggests plans to transform the assisting telecenters into sustainable and relevant telecenters.
3. provide guidelines to assist telecenters in transforming telecenters into relevant and sustainable telecenters.

800 questionnaires were distributed to the users and supervisors of telecenters throughout the country. 767 questionnaires were returned. The questionnaire consisted of eight sections which are designed to gather information on respondents’ background, information about telecenters, computer ownership and computer usage, perception towards the Internet, perception towards the benefits of telecenters, perception towards services at telecenters, sustainability of telecenters and ends with suggestions. There are 11 types of telecenters and out of the 11 types, 30 telecenters which have been categorized as successful, less successful and the least successful were visited and evaluated. Observations were conducted and interviews with the supervisors and the users were also carried out during the visits. Since this paper focuses only on how to develop telecenters into e-learning training centers for the community, the paper will report on the related findings only.
5 Findings
The findings reported in this section is on ownership of computers at home, willingness to spend on training, IT usage at telecenters and IT applications.

Ownership of computers at home

figure 1

The findings showed that more than half of the telecenter users (42.8%) own computers. The main reason for visiting telecenters is to surf the Internet. Another reason given is that their parents limit their use of the Internet at home and their younger siblings need to use the computers too. Although more than half of the telecenters’ users own computers, telecenters continue to play an important role in ICT because the centers are still relevant in providing access to ICT to the community.

Willingness to spend on training

Figure 2

In relation to spending money on IT usage, 67.5% are unwilling to spend money for training. Only 32.5% are willing to spend money on IT training. Another 14.7% are willing to spend, but not more than RM30. Finally 11.4% are willing to spend between RM100 and RM300 for IT training. This group comprised those who are working and are willing to spend in order that they become more marketable in the job market. Those who are unwilling to spend are those who earn low income and they do not have extra income to spend on things which they feel are unnecessary.

IT usage at telecenters

Figure 3 shows that the highest percentage for the purpose of visiting telecenters is to do schoolwork (50.5%), to search for specific information (50.1%), entertainment purpose (46.4%), to attend basic IT training (45%), to communicate online (44.1%), to play online game (40.6%), to do business transactions (15.6%), to do office work (16.3%) and others (26.5%). Based on the ‘File’ history available online, we concluded that others include searching for information on jobs, to fill in application forms to higher learning institutions, to access e-government portals and other applications.

IT applications

Figure 4 shows the applications which are frequently used by telecenters users are computer games (55.2%), online services (23.5%), download software (40.5%), blogs (43.6%), chat groups (36.7%), download graphic applications (59.2%), emails (58.5%) and to surf the Internet (70.5%). This clearly shows that the users have IT knowledge and are exposed to the various types of IT applications.
6 Conclusion

The findings revealed that telecenters are used mainly for the purpose of accessing the Internet in order to search for information related to the individual needs of the users. If the trend continues, the aim to develop and transform telecenters as e-learning training centers for the community will not be achieved. Telecenters users and the community must be made aware of the telecenters’ roles as agents to help develop and build human capital. Therefore, the study proposes that telecenters establish collaborations with both the public and the private higher learning institutions (universities, and colleges), schools, educationally driven based industries, technical colleges or institutions and even telecentre.org whereby telecenters can be used as the place to conduct various types of training and courses through online mode or face-to-face mode (figure 5).

Collaboration of telecenters with educational institutions

For example, programs such as microcontroller and the use of core-chart which will help develop creativity and innovation among the youths in the community. Other programs such as developing creative multimedia and other digital planning program can also be developed. Online learning and tuition for subjects taught in schools (Maths, Science, English, Bahasa Melayu and others) can be offered to school children. Small business owners can be exposed and be trained on how to market their businesses online in the most effective ways. This can be made possible through collaboration with educationally driven based industries and telecentre.org. Academicians in both public and private higher learning institutions can offer their academic expertise online (tuition, academic counseling and others) to the community as part of their social responsibility and to share their academic expertise.

The technical colleges or technical institutions can offer technical and practical training programs. The developed programs must ensure that the courses and training offered would achieve the aim of providing technical and ICT knowledge for studying and work related purposes to the community. The types of training programs developed should also take into consideration the participants’ existing knowledge. Table 1 outlined some of the programs which can be offered.

<table>
<thead>
<tr>
<th>No</th>
<th>Types</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Basic</td>
</tr>
<tr>
<td>2</td>
<td>Computer parts</td>
<td>basic</td>
</tr>
<tr>
<td>3</td>
<td>Office automation software</td>
<td>Basic, advanced</td>
</tr>
<tr>
<td>4</td>
<td>Internet</td>
<td>Basic, advanced</td>
</tr>
<tr>
<td>5</td>
<td>System development</td>
<td>Basic, advanced</td>
</tr>
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The development and transformation of telecenters as e-learning training centers should be in tandem with the government’s aim in developing a k-economy and k-society country. This means that telecenters must have good and well established collaboration with the appointed educational institutions and agencies (figure 5) in order that telecenters’ roles can be maximized in providing and extending educational opportunities to the community.

References
