

Impact Analysis on Utilization of Telecenter: The Case of Telecentre in Baling

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ABSTRACT

The telecentre in Baling is established under the Universal Service Provision fund, aiming to provide community with broadband access and training programme focusing on e-application. Nevertheless, the impact of this initiative is yet to be studied. Thus, the undertaken study is aimed at examining the utilization and impact of Baling telecentre on the community. A total of 34 respondents were interviewed using structured questionnaires. Outcome of the study indicates that the telecentre has improved its community in certain senses. Lesson learned from the study is also discussed.

Keywords

Telecenter, Rural ICT development, Community center

1.0 INTRODUCTION

Baling is located at the state of Kedah, Malaysia. The telecentre serves the community from sub district Siong, which is one of the 7 sub districts in Baling.

Currently this telecentre is the only center that provides information communication technology (IT) facilities to the community surrounding sub district of Siong. Other access to ICT facilities can be obtained in Pekan Baling which requires the community to travel as far as 20km. Eventhough, there exist a cyber café which is 3km from this telecentre, nevertheless the centre only provides computer game playing. With this, the telecentre has been receiving attention from the community in obtaining ICT facilities. Until the end of year 2009, the center has served approximately 15000 people who live in the surrounding villages.

Currently, the telecentre is sponsored by three parties, which are responsible on providing the financial support, network infrastructures of the

centre and also the content application required by the center.

In order to operate the center, currently there are two persons in-charged. They are known as operators of the center and are both ICT graduates. As both of them are living in Pekan Baling, this would facilitate the process of managing the center. Furthermore they have been working in the center since it was opened in 2007.

The telecentre users can be categorized as school children, university/college graduate, housewife, farmer, small-medium entrepreneurs, government/private servant, retired and people with disabilities. The main users of the telecentre are teenagers, whom are in between 12 to 20 years old, while senior citizen is found to be the least group of people that utilized the centre. Users of age 21 until 40 are ranked as the second group of users that frequently visited the center followed by the children and adult group.

Currently the center is operating with 12 computers. Specification of the computers and ICT devices provided in the center are shown in Table 1.

Table 1: Equipments in the telecentre

Equipment	Unit(s)
Computers	12
Server	1
Router	1
Switch	1
LCD	1
Wireless port	1
CCTV	2
Scanner	1
Laminator	1

The hardware repair and maintenance is sponsored by one of the stakeholders. In addition, the warranty for computer equipments is covered by the vendor. Usage of the computers is monitored by a monitoring system called USP Monitoring System (UMS). Prior to using a computer, a user is required to log in to the system.

Specification of the computers and additional devices provided in the center are shown in Table 1.

1.1 Services

The current practice of telecentre in promoting their services is by briefing the school authority, religious center authorities (mosque) and village authorities. In addition, promotion of the center is also done through phone calls, letters, brochures and word of mouth.

The telecentre is also having joint venture programs with third parties. This includes KEMAS and E-Komuniti Bestari. Nevertheless, it is yet to be reported on collaboration done between the telecentre and surrounding community authorities such as religious center authorities (mosque) and village authorities (JKKP). Even though JKK would play an important role in community development, they have yet to be aware of ICT usage in economic and social growth.

The telecentre offers various ICT services which includes wireless connectivity, computer classes (Microsoft office application and e-application), guidance and advice on computer purchasing, printing, scanning and laminating. In addition the center also provides services on designing invitation card and preparing formal documentation.

Besides the above services, the telecentre is also involved in several specific projects. The stakeholders has required the center to become the mentor for the small-medium (SME) enterprise of Ulu Lenggong. The center is responsible of developing websites in promoting 2 projects, namely, the homestay and foster children. As to help SME to grow, the center is taking the initiatives to provide ICT training services that help community to promote their products. Besides that, the center also offer training related to business such as marketing, financial document preparation (Ms Excel). It is also the aim of the center, in the future, to provide blogging facilities and online ordering for SME products.

Existing services offered by the center is originally initiated by the operator. Even though there is demand for certain training (eg: photoshop), nevertheless the number of interested user is very small. Hence, the intended training is postponed.

Based on the study, it is also noted that users of the center seeks information on employment, University/college and boarding school entry application and acceptance status, Scholarship and education loan and Employees Provident fund (EPF).

1.2 Problem Statement

Unlike other model implemented in Malaysia, the telecentre focused on e-application and the Internet usage instead of computer application/software. For the past two years, this centre had come out with numerous successful training sessions to its community with a specific target user such as school children, senior citizen and indigenous group. To date, the number of users registered at the telecentres is up to 2000. Nevertheless, the figure can't be used as a benchmark that the services and infrastructures in the telecentre is fully utilized by the user, let alone to show that the telecentre have a significant impact on the community. Thus, there is a need to obtain feedback from the community to measure the beneficial impact of the telecentre to the community as assurances that the facilities provided in the telecentre is fully utilized to achieve the objective of the telecentre.

2.0 LITERATURE REVIEW

2.1 Telecentre

ICT tools can create new types of economic activities, employment opportunities and enhance social interaction and networking among people as an access to information has the potential to bring about the necessary social and economic change in a society. (Norizan, 2009; Ariyabandu, 2009). Nonetheless, information growth often results in imbalance to the community as a result of differential access to information, due to digital divide (Beamish, 1999; Norizan *et. al.* 2007; Ariyabandu, 2009). Hence, the digital divide can be reduced by providing access to public information systems through telecentres (Rogers and Shukla 2001).

Based on this idea, telecentre projects are aimed at achieving various development objectives especially the Internet for educational, personal, social, and economic development (Riley & Gomez, 2001; Ariyabandu, 2009). Community can used the telecentre for various activities such as social gathering activities, student learning activities and interactions. (Noriadah et al, 2009).

2.2 Impact of Telecentre

Even though telecentres have been accepted as a model for creating access to ICT and will lead to development of the communities, study on actual deliverables is required to verify that empowerment has actually occurred from telecentre implementation (Harris, 2007; Parkinson & Lauzon, 2008). Studies on impacts of telecentre utilization to the community is not widely done by the researchers on this field as most of studies only focused on the

sustainability and evaluation on the operation of the telecentres itself (Young, Ridley, & Ridley, 2001; Roman, 2003; Etta & Wamahiu, 2003; Kumar & Best, 2006). Araba Sey (in Hyma & Tulus, 2009) in his review discovered that there is only limited conclusive evidence on the impact of public access to ICTs. Thus, such study is needed since the main drive of the telecenter is to contribute to local development by enhancing their living options (Parkinson & Lauzon, 2008).

The real benefits of telecentres are not found by the latest technology or powerful equipments provided in the telecentre, but in the transformations that they contribute towards communities that they serve and the impact cannot be assumed by the stakeholders (Kumar & Best, 2006; Harris, 2007; Parkinson & Lauzon, 2008;).

2.3 Telecentre Projects in Malaysia

Telecentre project in Malaysia is initiated with the objective to bridge the digital divide, as well as to upgrade the community ICT literacy level (Norizan, 2009). Malaysian Economics Planning Unit (EPU, 2007) defines Telecentre as a knowledge hub to provide ICT resources for public access in order to improve the socio-economic status of targeted local communities.

Currently there are approximately 2,150 telecentres set up by various Federal and State Government agencies in Malaysia with various models of implementation, such as The Rural Internet Centres (RICs), Medan InfoDesa telecentres (MIDs), Community Broadband Centre (CBC) and Community Broadband Library (CBL) (Telecentre Magazine, 2009).

Previous research done by Ezhar et. al, (2007) and Zahurin et al. (2007) have identified challenges faced in operating a telecenter in Malaysia. This includes improper physical facilities, inadequate IT training programs, insufficient manpower, lack of promotion, and inappropriate operation hours.

3.0 DATA COLLECTION

In order to identify the impact of the telecentre to the community, 34 respondents (2 operators, 29 users and 3 non users) were interviewed using a structured questionnaire. Such an activity was performed during a site visit to the center. The demographic profile of respondents is shown in Table 2.

Table 2: Demographic profile of respondents

Age	< 12	12 – 20	21 - 40	41 - 60
Frequency	2	17	12	3
Gender	Male		Female	
Frequency	16		18	
Status	Single	Married	Widow/ Widower	
Frequency	28	6	-	
Academic qualification	Primary	Secondary	Tertiary	Cert.
Frequency	2	20	9	3
Household income	< RM500	RM501- RM1000	RM1001- RM1500	Un- known
Frequency	8	13	2	11
Computer ownership	Yes		No	
Frequency	12		22	

4.0 IMPACT ANALYSIS

Based on the interview and observation performed on the telecenter operation, the impact of the telecentre existence can be categorized as follows:

4.1 Infrastructure

The existence of the center has acted as a focal point where the community can spend their leisure time. Based on the observation done, it can be seen that school children (secondary and primary) spend their after-school hours in the center. Most of these users are satisfied with the facilities and infrastructures provided in this center. However, they are concerned with the slow Internet connectivity and insufficient number of computers. This situation can usually be seen during weekends and school holidays. There is also a demand for the center to equip each PC with a web camera. This facility is to aid users in utilizing video conference applications. Other than computing devices, users also requested for fax services.

4.2 Services

Currently, services offered by the center are utilized by the users. Nevertheless, users are looking forward to various training programs and this includes computer maintenance, the use of social networking applications such as Facebook and Twitter, and also lessons on improving typing skills. In order to increase the economic and social welfare of the community, there is also a need for trainings or workshops related to self-motivation, entrepreneurship, and agriculture.

In order to bridge the digital gap that exists within the community itself, users also require computer awareness programs. This program can be treated as a promotional mechanism that gathers all levels of

community members. It can be in the form of game or workshop that developed users technical skill on computer hardware and software.

4.3 Operating hours

There is also a request from the users, demanding the telecentre to be opened at night. They have suggested for the center to operate until 11 pm. Nevertheless, such a request is yet to be fulfilled as the local authorities are concern on safety issues.

4.4 Impact to Life

Respondents of the study have come to a conclusion that the centre has given a positive impact in their life. Users are happy with the existence of the center in their community. This centre has helped them in obtaining up to date information related to their daily activities such as banking transaction. This centre has also reduced the digital gap that exists between rural and urban area. Nevertheless the ICT exposures need to be controlled in order to prevent unethical activities (for example, browsing pornography website).

Besides than obtaining view points from users of the centre, this study also include the non-users perception. Community included as non-users are the ones that do not utilize services offered by the centre. In the undertaken study, a total of 3 non-users were involved. From the view point of these users, it is noted that the existence of the centre has brought positive environment to the community. These users are very delighted on having the centre located in their community. They believe that the centre can contribute in improving ICT knowledge amongst the community members. The main users of the centre (school children and youth) are not only introduced to ICT but also share the knowledge with their family members.

It also the hope of the non-users that having ICT knowledge and skills would improve the family and community economic and social welfare. This can be achieved by utilizing services offered by the centre; job-hunting process is facilitated, early response could be made towards any identified opportunities such as scholarships applications and subsidy funding.

Furthermore, it has been realized that the young generations are able to better utilize their leisure hours. They have been seen to spend most of their time in the centre as it offers the opportunity to be connected to the internet. On the other hand, such a situation has prevented the community from facing unethical activities (for example vandalism and loitering).

In order to ensure the success of this telecentre, there is a need for an on-going promotion to attract users to the centre. Various mode of promotion need to be

undertaken as the community is built upon different groups (for example age range, academic background). In addition, it is the hope of the non-users that the centre would be supported (financial and moral) by relevant parties.

5.0 LESSON LEARNED

Amongst the lessons learned from the undertaken study is the selection for venue of a telecenter. The telecentre is located by the main road running across the village; hence it is strategically being placed as users find it convenient to come to the centre. Most of the members are students or unemployed, therefore they can utilize public transport in order to reach the center. In addition, the existence of a wide space surrounding the center facilitates users in parking their transport.

In operating the center, operators are required to attract as many people as possible to become a member. Appropriate training programs and activities need to be designed and implement to educate the community on the use of ICT. This would later help the community to improve their socio economic well being. Therefore, operators themselves need to be trained and motivate to manage the centre. Thus the selection of managers are crucial as the managers have to be at the centre 7days a week, and at least from 9am to 5pm. They have to be independent, aggressive, and comfortable with the rural environment. Furthermore, communication skills are also important as they need to interact with different groups of users. Although the managers are encouraged to be enterprising by bringing in revenues through conducting business activities, the main roles are to train and manage the centre by providing access and connectivity. The managers are evaluated by the utilization and number of people trained. Thus the issue of whether the centre can be financially independent and sustainable is not important in this case.

Operators of center are also in the belief that the telecentre is able to generate sufficient income if it is allowed to fully operate as a business entity. This means that the center is allowed to offer more products and services, different charges for the services, different operating hours, implementing business and marketing strategies and plans. Perhaps the center could generate income by forming partnership with schools by getting contract-basis project on maintaining computer labs.

6.0 CONCLUSION

This paper provides insight into the utilization of a telecenter that was realized with the aim of bridging digital gap between rural and urban areas. Such a

facility is intended to educate community on the importance of ICT in daily routines. Various opportunities offered through e-services and e-applications could be realized by the community to improve their economic and social welfare. In order to attract users, especially the senior citizens to utilize the telecenter, it is learned that appropriate activities should be designed and undertaken. This would not only bridge digital gap that exist between rural and urban areas but also the gap that exist within the community.

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