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**The use of multipurpose community telecentres and their services in Malawi:  
The Case of Lupaso Community Telecentre**

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**ABSTRACT**

**17**  
Telecentres aim to bridge digital divides between rural and urban communities. In many developing countries, like Malawi, the assumption is that once telecentres are established, then people will adopt them. **25** The purpose of the study was to examine the factors influencing the use of telecentres in rural areas of developing countries by means of a case study of Lupaso Community Telecentre, in a remote region of Malawi. Following the example of a study of public computing facilities in Cape Town (Chigona & Licker 2008), the study employed Rogers's Diffusion of Innovation (DOI) theory as a theoretical frame. Data were gathered through a mix of methodologies: questionnaires, interviews, observation, and records analysis. **4** The study reveals that a large majority of its users view the Telecentre as an empowering project and are satisfied with its services. They perceive it to be improving human skills, helping the economy and strengthening the social capital of the surrounding community. However, it seems that it benefits only a small percentage of the community. Access is uneven. One surprising finding is that the ICTs are not the chief attraction. The factors that negatively impact on the use of the ICTs are: lack of Internet searching skills, frequent blackouts, lack of local content, and the fees. To fulfil its mission it is recommended that telecentres in developing communities enhance their services with information literacy and literacy education programmes.

**Key words:** Malawi, digital divides, telecentres, multipurpose community telecentres, Lupaso Telecentre, rural areas, public computing facilities

**1. Background**

**16**  
This article reports on a study that investigated factors that influence the use of telecentres in Malawi by means of a case study of the Lupaso Community

Telecentre. The Lupaso Telecentre, one of three community managed telecentres, is situated in the Mwambanya Village Traditional Authority of Kyungu, approximately 22 kilometres from Karonga Town in the north of Malawi. A telecentre is “a physical space that provides public access to Information and Communication Technologies (ICTs) for educational, social and economic development” (Harris 2001:73). Telecentres serve to bridge the digital divides between rural and urban communities (Isaacs 2007: 5).

Malawi is classified as the least developed country and a highly indebted country by the United Nations Development Program and the World Bank respectively and in 2015 was ranked 173 out of 187 countries on Human Development Index (Human Development Report 2015:210). Almost half of the country’s population of approximately 15 million people lives on less than \$1 a day (Malawi 2012: 204) and 83.9% live in rural areas (Human Development Report 2015:236). Rural areas are characterized by few roads and means of transport, inadequate access to ICTs like phones and computers, low income levels, and high dependence on farming and fishing (Chigalu 2006; Isaacs 2007: 5). Literacy rates indicate disparities between rural and urban regions and between genders: 61% of rural dwellers are literate as compared to 89% of urban dwellers (Malawi 2012: 21); and 74% of males are literate compared with 70% of females (Human Development Report 2015:244). Malawi’s official language is English. However, it also has a diverse of languages. The national language is Chichewa which is the most dominant one. Other five dominant languages include: Yao, Tumbuka, Nkhonde, Lomwe and Tonga (Department of Immigration Republic of Malawi n.d.).

Malawi’s ICT infrastructure is poor. In 2014, only 5,590 were broadband Internet subscribers; 64, 247, had access to fixed telephones; and 6, 487, 304 were mobile phone subscribers (Nyirenda 2014). Some notable initiatives by the Malawi government to bridge the digital divide since the early 2000s include: the formulation of Rural Telecommunications Policy in 2002 by which the Malawi Government, in collaboration with telephone network service providers, acquires cheap cellular phones to be sold on to Malawians at a cheaper price (Chigalu 2006); the formulation of the Malawi Information and Communications Technology (ICT) Policy in 2003 which aims at improving ICT infrastructure in rural areas through the

establishment of Multipurpose Community Centres (Malawi 2003); and the development of the Malawi Growth Development Strategy 2006-2011, which has led to the establishment of rural information centres housing computers and information in various formats (Chigalu 2006). Telecentres in Malawi started in 2007, under the auspices of the Malawi Communications Regulatory Authority (MACRA) with funding from the International Telecommunications Union (Banda 2014). The government of Malawi is continuing to establish telecentres under the *Connect a Constituency Project* (Nyasa Times 2012). So far 71 telecentres have been set up; Lupaso is one of only three centres that are managed by the surrounding community.

The study of Lupaso Telecentre relies on Roger's Diffusion of Innovations (DOI) theory (1995), in common with several studies of telecentres in other countries (for example Roman 2003; Chigona & Licker 2008). The term innovation refers to a product that is perceived as new by the adopters but that is not necessarily new to all people (Mark & Poltrock 2001:232). According to the DOI theory, acceptance and spread of an innovation depends on the properties of the innovation, such as:

- perceptions of its relative advantages
- how compatible it is with its potential users' circumstances
- how difficult it is to use
- how visible its benefits are
- how the innovation is communicated (by mass media or by people talking to one another)
- who adopts it and when
- the consequence of the innovation
- the surrounding social system (Rogers 1995; Roman 2003).

As Roman (2003:53) points out, telecentre projects should be evaluated while they are young so that adjustments can be made. **It is hoped that** lessons learned from **this study will help** telecentre managers and **the** Malawi Government understand ways of improving the social acceptability of telecentres.

## 2. Models of public access to ICTs

There exist different models of ICT public access venues, for example: computer centres in public libraries; cybercafes; Thusong Multi Purpose Information Centres; and telecentres. There is much overlap among these terms and models; and all aim at bridging digital divides and contributing to socio-economic development. An HSRC investigation into ICT access across South Africa in 2007 concluded that public libraries have a wider spatial distribution than other information agencies like multipurpose community centres or telecentres and that their community orientation gives them an edge over these others (Tlabela, Roodt & Paterson 2007: 101). Cybercafés target the better-off parts of society and are more common in urban areas (Haseloff 2005). Thusong Service Centres are multipurpose information centres in remote regions of South Africa, through which the South African government provides access to government services and information (Government Communication and Information Systems (GCIS) 2013). Several now incorporate public libraries (LIS Transformation Charter 2014: 53). In rural areas, telecentres are often the only venues for accessing ICT services (Gómez, Hunt & Lamoureux 1999:15; Haseloff 2005). Telecentres range from rooms with only basic ICTs to multipurpose information centres which serve as well as public libraries.

## 3. Brief literature review

A perusal of the literature reveals the following themes: the relevance of telecentres to rural communities, usage patterns, the challenges facing telecentres and their users, and the factors influencing the diffusion of telecentres.

Telecentres are relevant to their communities because they offer several benefits like improving human capital, financial capital, natural capital and social capital by enabling users to form bonds and easily communicate (Soriano 2007; Chilimo 2008; Chigona et al. 2011:12). Telecentres are also potentially important for fostering participative democracy and active citizenship at both local and national levels (Twinomurinzini, Phahlamohlaka & Byrne 2012: 210). It seems that the majority of their users view them positively in their communities and are satisfied with the

services that they provide to them (Lesame 2006; Etta & Parvyn-Wamahiu 2003: xxiv).

Nonetheless, research indicates that these facilities are being underused and that they are not accessed evenly by all groups of people in their communities. Mostly, the users tend to be males, young, school or college students, relatively more educated and belonging to higher income households (Etta & Parvyn-Wamahiu 2003; Kumar & Best 2007; Mtega & Malekani 2009).

The literature also shows that telecentres in rural regions in countries like India, Mexico and South Africa face a number of challenges and limitations. Some of these challenges include: the unreliability and high cost of power supplies, the unreliability of telecommunications and the high cost of accessing them, inadequate physical facilities, and inadequate opening hours since many telecentres keep formal government working hours. Some writers comment on weaknesses in telecentre management, especially in those owned by governments (Etta & Parvyn-Wamahiu 2003; Mtega & Malekani 2009). Another challenge is the pressure to justify their existence in the age of mobile technologies when some services may be accessed through mobile technologies (Chigona et al. 2011:1). Telecentre users also grapple with their own challenges such as lack of Internet searching skills and lack of fluency in English (Etta & Parvyn-Wamahiu 2003; Huerta & Sandoval-Almazán 2007).

The literature reveals several factors that influence the success of telecentres, such as the complexity of the ICT equipment available in the telecentres, the bonds existing within communities, and the communication channels used to publicise the telecentres. Of key importance is the compatibility of services with the needs, values and beliefs of community members (Kumar & Best 2007; Chigona & Licker 2008; Abdulwahab & Zulkhairi 2011). However, several writers point out that factors influencing the use of telecentres in one community may not be the same as in another community. Therefore, it is important to conduct studies of the factors influencing the use of telecentres with respect to a given community.

#### 4 Research site: Lupaso Telecentre

Lupaso Telecentre was chosen for the study because, having been operating since 2012, it should be relatively well-established but might still be regarded as an innovation, and, as mentioned earlier, it is one of three so-called community managed centres in Malawi – with the Lupaso Telecentre Local Management Committee (LTLMC) in overall charge. As mentioned in a previous section, community orientation has been found to be a key factor in the success of public ICT facilities. The LTLMC is composed of representatives of various groups in the community including chiefs, teachers, youths, and community organisations.

The main objectives of the Telecentre, as laid out in its constitution, include:

- provision of communication facilities to the community to facilitate communication with people all over the world
- a recreation centre to enhance proper utilisation of leisure time so as to minimise contraction of HIV/AIDS and other sexually transmitted diseases
- the generation of funds for development projects for people's upliftment
- creation of job opportunities and
- acquisition of knowledge and technical skills in various disciplines.

Lupaso Telecentre is situated in the Mwambanya Village Traditional Authority of Kyungu, approximately 22 kilometres from Karonga Town in the north of Malawi. The total population of the catchment area of Lupaso Telecentre is 7880 people. The dominant language in the area is Nkhonde that is the language spoken in Karonga District. Most people in this area are farmers, mainly involved in growing rice and cassava and in fishing. There are 12 primary schools, two secondary schools, one health centre, two under-five clinics, four community based organisations and three youth groups in the area (Mwandosya 2013). The region has poor road networks and in bad weather the only means of transport is bicycles – with the ride to Karonga Town taking at least one hour.

The Telecentre is one of two facilities providing public access to ICTs in the area. Nkhando Primary School, 10 kilometres from Lupaso Telecentre, offers some ICT

services for the use of pupils, teachers and the community, although it has no Internet connectivity. The school centre offers basic ICT skills training in a course of 10 days at MK2500 (ZAR62). A visit to the school in the course of the study found the computers unused and covered by cloths. The nearest public library is Karonga National Library found in Karonga Town.

Lupaso Telecentre has eight members of staff, recruited by the LTLMC together with MACRA, the government body responsible for telecentres: three security guards, the manager, one responsible for customer care, the librarian, and two cleaners (Mwandosya 2013). The staff is paid by MACRA though the original agreement was that they would be getting money from MACRA for the first year only. Interviews in the course of the case study revealed that the money that the Telecentre makes so far cannot fully support the payment of staff.

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Lupaso Telecentre offers a wide range of ICT and office services – all for a fee. Internet access is charged at MK300 per hour (ZAR7.2). Its library holds a collection of newspapers and pamphlets. The books can be read within the library and are also lent out to its users for a period of two weeks. Every user is allowed to borrow a maximum of 4 books. The Lupaso Telecentre's library room was supplied with books at its opening by the Malawi National Library Services and MACRA. But the library is not part of the Malawi LIS network and does not have a regular supply of books and the librarian is not professionally qualified. Over the case study period the most popular space was the television room – with people coming in to watch football. Computer tutorials are usually offered in groups. Computer tutorials are usually offered in groups. The Telecentre advertises a course every month and people apply.

## 5 The case study of Lupaso Telecentre

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The project set out to examine factors influencing the acceptance and use of telecentres in Malawi by means of a case study of Lupaso Telecentre. Its research questions reflect Rogers' DOI theory:



1. What are the usage patterns of the Lupaso Telecentre?
2. How relevant are the telecentre services to community members?
3. What factors affect the usage of the centre? For example:
  - How easy/complex are the services to use?
  - Who influences the use of the telecentres?
  - Where did the users hear about the telecentre?
4. What challenges do telecentres and their users face?

The questions were answered by means of a case study using a mix of the following data gathering methods:

- continuous observation over two weeks: with field notes and photos recording the observations
- a questionnaire survey of 130 users conducted by one of the authors and her two research assistants (college students). It was distributed to almost all visitors during the two week data collection period, apart from those coming in to watch television. The Manager claims that there are about 700 visits to the Centre every month – but the attendance register throws doubt on this figure. The questionnaire, piloted in a telecentre in Cape Town and translated into the local language, contained questions on demographic characteristics of respondents, use of services, perceptions of the relevance of the Telecentre to the community, factors that influence the use of the Telecentre, and the challenges faced when accessing the Telecentre services. Its questions reflect DOI theory
- interviews with key informants: including the Telecentre manager, the customer care manager and the librarian, the chairman of the LTLMC, and MACRA staff. The aim was to get their views on the usage patterns observed by the researcher and the challenges that the Telecentre faces
- documents and records analysis: including receipt books, Lupaso Telecentre's constitution, Memorandum of Understanding between the Telecentre, MACRA and Karonga District Council, and the Telecentre's attendance book.

The limitations have to be acknowledged upfront. The questionnaire data refer only to people coming into the Telecentre; limited resources did not allow a wider lens. The findings come from respondents' and interviewees' views. Since the aim was not to assess the impact of the Telecentre on the community, no attempt was made to find confirming evidence for their views in other sources outside the centre.

## 5 Discussion of findings

The data collected through the user questionnaire were analysed using the Statistical Package for the Social Sciences and Microsoft Excel. The qualitative data were analysed using the standard techniques of qualitative data analysis as outlined by Braun and Clarke (2006); thus, for example, the interviews were transcribed, and tabulated by units of meaning or themes that emerged across the interview questions. Triangulation of data across the study's components was conducted in order to confirm tentative findings. At times data from one component, such as the observations, led to questions to be followed up in another.

The findings given in this section are organised into four themes:

- usage patterns
- relevance of the services
- factors influencing the take-up of services
- challenges to adoption.

### 5.1 Usage patterns

This section examines who uses the Telecentre, what its users use it for, how often they use it – as well as their perceptions on why it might not be used to its full capacity.

#### ***Demographics of user respondents***

According to the questionnaire survey:

- The income levels of the Telecentre users are low - with 65.6% earning below K5,000 (\$10) per month.
- Most users (70) are farmers who do not earn a regular income and small business owners (24). Other respondents include 11 students, 10 teachers, two agricultural extension development officers, two security guards, one child protection worker and one priest.
- Unlike some findings in the literature, educational levels are not high. Only six of the 130 respondents have a post-school qualification. There is a marked difference between male and female respondents at JCE and MSCE and tertiary levels.
- The age range ranges from 13 to 70 years, with the the bulk of respondents (80.3%) falling between 13 and 35 years.
- A high proportion (73%) of the respondents are male.
- The home language of the majority of respondents (86.8%) is Nkhonde – which is a minority language nationally.
- The majority, 102 (81.6%), live within four kilometres of the Telecentre.

In his interview the customer care manager confirmed the dominance of youth in their 20s. It seems that older people mostly come to the Telecentre for meetings. In this extract the manager links the use of ICTs to forward-thinking vision, claiming that the older people in the community have no desire to change their way of life:

*“For the age. More school goers are the youths. You find that the elderly are married they don’t have that vision of going somewhere else they are just around. So, they are just saying where can I go with knowledge because I am already older and I will not go anywhere I will just be cultivating, farming here and having life goes on with my family. It’s only the youths have the vision and living with new technologies and willing to catch up with changes.”*

Fieldnotes throughout the two week period confirm male dominance. The low usage of the Telecentre by women might be connected to the low educational levels among women in Malawi, which were alluded to earlier. A comment by the LTLMC Chairman supports this possible explanation:

*“Eeh, it goes back to my first point, literacy rate. For women, eeh, munomo (here) eeh, the majority of women eeh, are those who haven’t gone to school.....Another factor is that young girls who are at school, these school kids drop out from school because of early marriages and such nature it’s also a hindrance.”*

### **Frequently used services**

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Users were asked to indicate the services that they had used for the past month. The literature suggests that the frequently used services tend to be those offered for free, those not available elsewhere, and those that cannot be accessed at home (Kirkman et al. 2002). Table 1 shows that the top three services used by individuals in the Lupaso Telecentre in the preceding month are photocopying, borrowing books from the library, and printing. The receipt books confirm that photocopying facilities are heavily used, with the many schools in the community printing and photocopying exam papers. The receipts show that hiring of the hall by organisations generates the second highest income after photocopying.

**Table 1: The services accessed in the last month from most used to least N 130**

<b>Service</b>	<b>Responses</b>
Photocopying	84
Borrowing books in the library	61
Printing	49
Reading newspapers and magazines in the library	48
Binding	41
Other services	29
Computer and information tutorials	28
Lamination	23
Finding information on the Internet	21

Facebook and other social networking	20
Email	18
Faxing	11
Scanning	9

*Note that other services included services being offered in the tuckshop.*

Responses to a later question, summarised in Table 2, give a closer analysis of the diverse ways in which people use the Telecentre. Its value as a meeting place and as an access point to information is clear. Out of the nine users who indicated that they use the Telecentre for other purposes, only two indicated the purpose and both said that they come to the Telecentre to meet their relatives working in the Telecentre.

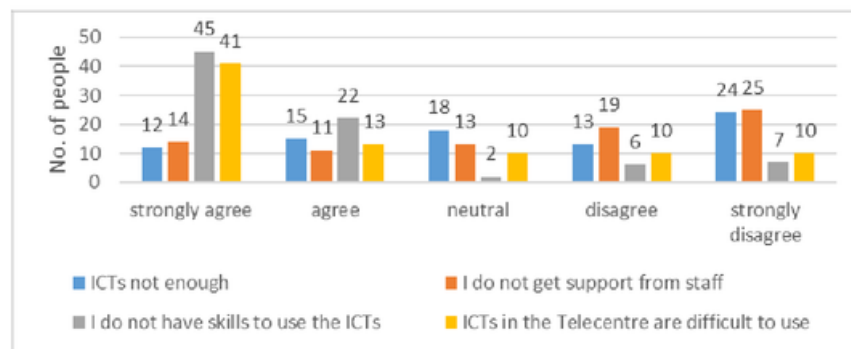
**Table 2: Purposes for accessing telecentre services N=130**

<b>Purpose</b>	<b>Responses</b>
Leisure and entertainment (e.g. watching videos and playing games)	68
Meeting friends coming to the telecentre	55
Looking for jobs in newspaper in the library	47
Conducting discussions and debates with people in my community	39
Accessing government services online	38
Communicating with relatives, colleagues and friends online	37
Meeting people (e.g. friends) online	32
Finding information on marketing techniques	30
Choosing a place to study (e.g. colleges or universities)	29
Looking for jobs online	29
Finding health information (e.g. Malaria prevention)	24
Finding information on prices of farm produce (e.g. rice and maize)	21
Engaging with leaders in my village	20
Engaging with the government leaders at national level	16
Other purposes	9

The above tables and the analysis of the receipt books suggest that ICT services, like social media and email, are underused. Given the central mission of telecentres to provide access to ICTs in underserved areas, respondents who had not used the ICTs in the centre in the past month were presented with four possible reasons. Their responses are summarised in Figure 1. According to the Figure, the main reasons for people not using the ICTs is their complexity and people's lack of ICT skills.

**Figure 1: Reasons why ICTs in Lupaso Telecentre are not widely used**

**N=86**



More insight might be gained from the responses to the questions on length of use and frequency. When asked to indicate how long they have been using the centre, almost 47.7% indicate that have been using the Telecentre since its inception; 23.1% have used the Telecentre for a year. Good news for the centre is that 13.1% of the respondents report that they joined up in the last month; however it would be interesting to know how many will continue.

A scale of seven was used to determine how often users visit the Telecentre. Figure 2 reveals that 58% come in at least once a week. However, 37 (28%) visit "rarely". Their answers to the question, on why they come only rarely, summarised in Table 3, lends support to the earlier comment on Figure 1. The most common reason by far is difficulty in using its services. Most of the responses under "other" refer to lack of

time because of being busy with farming or with school. Some other reasons include: lack of income; and having nothing to do at the Telecentre.

Figure 2: Frequency of visit N=130

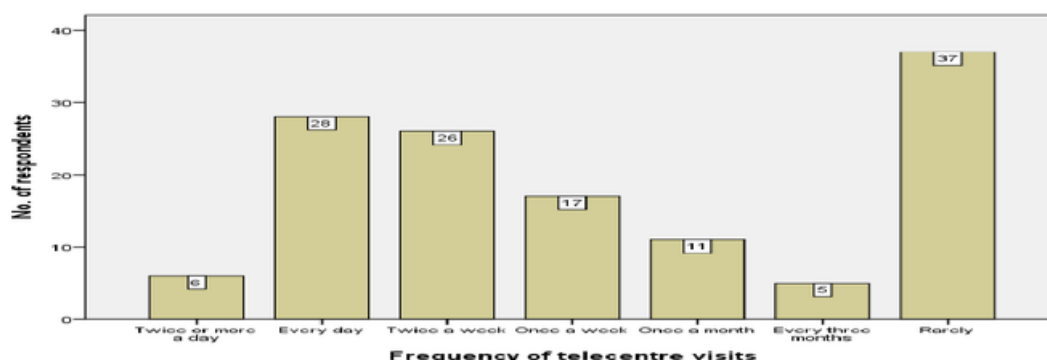


Table 3: Why do you visit Lupaso Telecentre “rarely” N=37

Reason	No. People
I find it difficult to use some services	27
Other (specify)	11
I get the same services at a different place at lower cost	9
The Telecentre does not satisfy my information needs	7
The Telecentre is too far from home	7
The services at the Telecentre are not good	4

The information on visitor numbers obtained through observation and the visitors' sign-in book confirm the questionnaire data that suggest the centre is not used to its full capacity. Observations over the two weeks confirmed that the ICTs often lie idle. It was estimated that an average of 20 different people a day came into the centre in the case study period. The general observation is that the number varies according to the type of service being accessed: thus, the highest numbers (34 and 33) were for a football match on TV and a meeting in the hall for people living with disabilities. These figures, together with those on the under-use of the ICT facilities, raise

questions such as what the Telecentre management is doing to attract more users from the surrounding community and how relevant the centre is to the needs of the community.

## **5.2 Relevance of Lupaso Telecentre to its community**

Respondents' views on the Telecentre's benefits and their satisfaction with its services throw light on the question of its relevance to the needs of the surrounding community. The interviews with the management add further insights.

### ***Benefits of Lupaso Telecentre***

Users were asked about the importance of Lupaso Telecentre in their lives. The majority of users (94.6%) view the Telecentre as an important part of their lives. A follow-up open-ended question asked them to mention what benefits they have experienced. Table 4 provides an analysis of the themes or units of meaning in the responses with selected quotations in support. From the Table, it seems the Telecentre is perceived as playing a big role in contributing to their own development and financial situation.

**Table 4: Benefits of Lupaso Telecentre (Question 16.1)**

<b>Units of meaning</b>	<b>Examples of responses</b>
Improving skills & knowledge	"Acquiring skills, I have been taught computer lessons e.g. using Internet" QR2  "Increasing knowledge when reading books" QR38
Offering cheaper services and being closer than the alternatives	"Cheaper services like printing and photocopying than going to town"  "Saving time because it's convenient" QR23
Improved financial position	"Expanded business" QR 27
Finding employment	"Finding employment" QR46  "It has employed my relatives" QR129
Everyday	"I am able to find information needed in my life" QR24



information needs	"..Because I find all what I need to assist me in my daily lives" QR67
Strengthening social connections	"Getting in touch with that are not within reach physically" QR 10 "Strengthens communication with relatives on the Internet" QR98

The focus widened in the next question which asked respondents to respond to three statements on possible community benefits, based on the consensus in the literature that telecentres in developing countries are important tools for socio-economic development (Soriano 2007; Bailey 2009:9). Analysis of the responses shows that:

- 82% agree that the Telecentre centre strengthens the social life of its users
- 70% agree that the centre is increasing the incomes of the communities it serves
- 96% agree that the centre increases skills and knowledge.

Moreover, the free comments added to the questionnaires and comments in the interviews with staff give more insight into the social, financial, and human capital generated by the centre. On improving human skills, it seems the Telecentre is achieving this through the provision of computer tutorials and access to books in the library as evident in the following comment made by one of the users:

*"Lupaso Telecentre has improved the above stated to gain knowledge through leading books and learning computers"* QR21.

On strengthening social connections, it appears that the Telecentre is achieving this by enabling users to develop friendships at the Telecentre and through provision of space which is used for debates and discussions as through observation, a good number of users were seen coming to the Telecentre to visit friends. The following comments by some users and staff lend support to this:

*"Because I meet my friends here"* QR5

*"Yes, because people conduct discussions and debates at this Telecentre"*  
QR90

*"People interact especially when they are watching soccer" (Telecentre Manager)*

*"People know each other at telecentres" (Customer Care Manager).*

The Telecentre is increasing the incomes of its community members through: creation of job opportunities within the Telecentre though at a small scale since only a few people work within the Telecentre; enabling people find jobs when they acquire computer skills; and through provision of information on markets for farmers as evident in the following comments:

*"It is helping people to find jobs" QR32*

*"Because some people have found employment at those telecentre and we were spending more transport expenses going to town but not here" QR 31*

*"People are gaining because of the source of information and easy communication with the buyers" QR 18.*

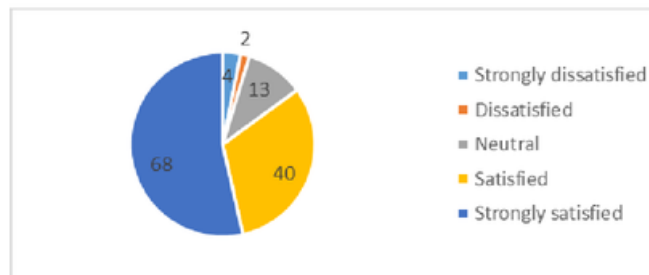
The Telecentre Manager in the extract below agrees that the Telecentre is increasing the incomes of people in the community. According to him, this is being achieved in two ways: offering jobs in the Telecentre to some community members who were initially jobless and helping people get employed when they acquire computer skills from the Telecentre:

*"And some of us, we were not working but this time we are working, we are employed just because of this telecentre.....And there were some who could not get employed because of lack of computer skills but after they were trained here, they go employed."*

#### ***User satisfaction with telecentre services***

Going by results shown in Figure 3 below, it seems that Telecentre satisfies its users' needs because the majority 85% are satisfied.

**Figure 3: Level of satisfaction with Lupaso Telecentre services N=127**



Respondents were asked to give reason(s) for their level of satisfaction. Most of the responses echo those to the earlier questions on the benefits that the Telecentre is bringing to the community and the Telecentre's ability to meet user's needs. For example:

*"Getting ICT services near, cheaply and faster"* QR 31

*"People have gained experience in using technologies"* QR 51

*"Has increased our income"* QR 67

*"Most the services have matched the needs of the community"* QR 82.

And, indeed, responses to a later question confirm the general satisfaction with the services with 79.67% reporting that the Telecentre is addressing their needs.

### 8 5.3 Factors influencing the use of the Telecentre

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This section examines the factors that influence the use of Lupaso Telecentre, relying on the views of key informants as well as the data gathered in the questionnaires. The discussion is informed by the factors that, according to Rogers's DOI theory, might affect the adoption of the Telecentre by the community, namely: how its services are communicated; the social system within which it operates; the visibility of its benefits; its relative advantages over other services; its complexity; and its compatibility with its potential users' needs.

On being asked where they heard about the Telecentre, the majority of respondents (70.2%) indicate that they heard about it by word of mouth, from friends, parents and

leaders, and 26.6% say from the radio or television. Views on whether the Telecentre has reached its maximum usage are divided evenly. Those who claim that it has not are asked to explain their view. The analysis of the replies is presented in Table 5. Some may indeed relate to the key influencing factors in Rogers's model, for example: perceptions that people lack the necessary skills and that it does not meet some of the key needs of community members, like bricklaying classes. More criticism of the centre rises to the surface in this section than in earlier sections of the questionnaire – for example on the unhelpfulness of the Telecentre's staff and the unaffordability of its services. .

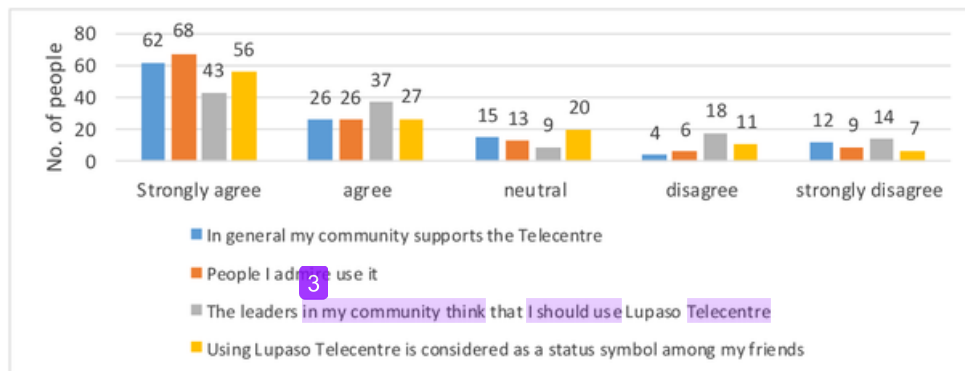
**Table 5: Reasons why some community members do not use Lupaso Telecentre N=60**

Unit of meaning	Selected quotations
Complexity - <sup>26</sup> lack of IT skills	"Lack of skills and knowledge of using ICTs" QR 1 "People do not know how to find information on the Internet." QR45 "People are socially backward in terms of technology. Hence few people e.g. students are able to use it" QR 66
Lack of understanding of the Telecentre's purpose	"Most people are illiterate so they think using telecentre needs education. Therefore they need civic education" QR 2 "Just because they don't know the importance of the telecentre and just because of ignorance" QR 16
Services do not meet needs	"Unavailability of some services like production of ID photos which makes some members to go to Karonga town" "some people do not use Lupaso Telecentre because some other services needed like brick laying, carpentry and joinery, are not offered" QR 109.
Poor staff attitudes	"Staff are lazy, they do not work to please people's needs" QR12 "people are now getting bored of what the staff are doing"

Lack of money	“Lack of money because other people cannot afford to pay to use computers. They wish to but have empty pockets” QR 92  “low income levels of people”
Inconvenient position	“Some live far from the Telecentre” QR 117

The DOI model makes much of the social influences on potential adopters of an innovation. Figure 4 below presents responses from users to four Likert statements probing the influence on them of attitudes in their social system.

**Figure 4: Aspects of the surrounding social system that influence Lupaso Telecentre usage N=121**



On the whole it seems that respondents agree that the surrounding community supports the Telecentre. The response to the statement on the influence of community leaders is the least positive. This is in line with answers to an earlier question on why they began to use the centre, when only 38 mentioned leaders.

The difference from the views of the Telecentre manager is noteworthy. In the extract from his interview below, he stresses the role of the local chiefs in increasing the Telecentre usage, specifically the computer classes:

*“It’s important to use chiefs because they are the ones who help us to mobilise aah their subjects....And people, once when the chief say something here, it carries more weight than us. They trust the chiefs more than any other.....Like*

*in the past, in the past we were starting, we wouldn't have many customers on computer tutorials but the time when we went to local chief, aah, to tell local chief the importance of it, and the service on computer tutorials we have seen a change. We receive more customers on computer tutorials."*

DOI argues the importance of the visibility of the benefits of an innovation. There is a high level of agreement (87%) among the Telecentres to the statement , "I have seen the benefits of using the Telecentre in others". These results are in line with the results presented earlier on the influence of word of mouth. A similar level of agreement (84%) is evident when asked what the Telecentre offers over other services. Some chose to add comments like:

*"I save time and money"*

*"Cheaper services like printing and photocopying than going to town"*

*"The services are cheaper in the telecentre".*

In the extract below, the Telecentre Manager adds support to this kind of comment, although adding the intriguing information that they only charge television viewers when they come in for a football match:

*"Even on the hall, we have the TV. We have so many users there who come and watch some TV programmes. ...the other thing is computer tutorial...The reason is because on television, most of the times we don't charge them. We only charge them during football. For instance, when Malawi having a game with other nations we charge them...And even if we charge them when they are watching football, we are cheaper than other competitors"*

Earlier on, the divided views on the support given to users was referred to in the context of its comments on perceptions in the community of the difficulties in using the Telecentre's ICTs. However, 72.9% of users agree with the Likert scale statement "I choose to use Lupaso because of the support I get for using ICTs from

*its staff*. And indeed the researcher often observed staff helping in the computer room. Perhaps, it is rather that the help available is not widely advertised.

#### **5.4 Challenges to use of the centre**

Table 6 below summarises the responses to a list of possible problems that confront users.

**Table 6: Challenges in accessing Lupaso Telecentre services N=130**

<b>Problem faced</b>	<b>Number of responses</b>
Lack of Internet searching skills	67
High costs of some services	63
Lack of information in local language	63
Inadequate physical facilities	55
Lack of support when using the telecentre	27
Lack of privacy when accessing information on the Internet	24
Shortage of opening hours	20
It is too crowded	17
Other problems	18

Again, questions over the capacity of the community to make the most of the Telecentre's ICTs come to the fore. The high number of responses on the lack of information in the dominant local language has to be relevant to this issue. Understandably perhaps, the information sources in the Telecentre's library are mostly in English, Malawi's official language. Field notes record some in the main national language Chewe but the regional language Nkhonde is hardly visible.

The most common problem given by those who ticked the "Other" option was frequent blackouts. The researcher's field notes indeed indicate that, during the two-week data collection period, there were four days with blackouts. Moreover, at times

some services were not available because there was no staff or because supplies such as toner for the printer had run out.

Interviews with the Telecentre's management and other key informants explored these challenges and highlighted some of the underlying factors, such as:

- bureaucratic delays. At local level, whenever the Telecentre runs out of something, the Telecentre staff has to consult the management committee which can be slow to approve the request. At national level, MACRA, which supports the Telecentre, sometimes delays this kind of support.
- lack of expertise within the Telecentre. The Telecentre Manager explained that equipment faults are reported to MACRA which is often slow to send a technician to see to repairs.
- the unreliable national power supplier. According to the MACRA staff member interviewed, this is a common problem across its telecentres.

## **6 Conclusions**

The study investigated the factors influencing the use of multipurpose telecentres and their services in Malawi by targeting one telecentre, Lupaso Telecentre. The main themes looked at in this study include: access patterns, relevance of telecentres to communities, and factors influencing their adoption. It can be concluded that Lupaso Telecentre, despite its low and uneven usage, has the potential of transforming lives. Its users agree on its benefits in improving the region's human, financial and social capital. Clearly, it is a social meeting place and most of its users are satisfied with the services they use. The study has shown that Rogers's DOI model provides a useful framework for examining a telecentre; it has been able to explain most of Lupaso Telecentre adoption decisions and to provide insight into the shortcomings on the ground. Thus factors like perceptions of relative advantage, personal and social value, and complexity clearly influence adoption decisions. As acknowledged earlier, there was no attempt to poll non-users; but even within the general satisfaction of its users, they show awareness of its limitations. Its accessibility is limited by for example: its restricted hours, unreliable power supply, its unaffordability, the lack of local content, and its inadequate support and coaching



programmes. Other management challenges include: bureaucratic delays and poor staff attitudes.

Perhaps the most surprising finding is that the ICTs are not its chief attraction – even though there are no other public access computing facilities in the area. Several questions arise from the clear under-use of the ICTs and the low enrolment for the ICT tutorials:

- Are the ICTs relevant? What use are they to the community which comprises mostly small-scale farmers and fishers?
- Given the consensus on the prevailing lack of capacity to cope with the complexity of the ICTs, is the support given to novices adequate?
- Given the contradictory findings on the levels of support available in the Telecentre, how does the Telecentre staff and their clients see the educational role of the Centre?

These questions might bring to mind the arguments over the relative advantages of the various models of public access computing facilities that were referred to in the introduction. Mathieson (2008: 16), in arguing for public libraries as “lynchpin institutions” in providing for the basic human right of access to information, points out that public libraries offer literacy, digital and information literacy education programmes which empower people to use information to make better lives for themselves. The study, mentioned earlier, of ICT access across South Africa by the HSRC provides support for Mathieson’s arguments – concluding that libraries add value to their ICT facilities <sup>4</sup> by means of their educational programmes which teach “information management skills” (Tlabela, Roodt & Paterson, 2007: 100). The evolving South African Thusong centres, which combine public libraries, telecentres and government information services, might well offer a promising model to enrich the telecentre model in Malawi (LIS Transformation Charter 2014: 53).

## 7 Recommendations

The study's findings suggest the following recommendations for Lupaso Telecentre staff, LTLMC and MACRA. Hopefully, these will also be applicable to all other telecentres in Malawi and other developing countries.

- In order to incorporate all groups in the community, telecentre managers and operators should be providing various programmes targeting different groups of people (Sharma 2008). For example, provision of radio programmes on farming would influence elderly people to be coming to the Telecentre.
- It is important that telecentre services and the programmes should be linked to what people need from the Telecentre. Conducting needs assessments regularly can help to achieve this.
- Education is needed to remove misconception that telecentres are only meant for educated. However, literacy classes should also be introduced because many services indeed need people who are able to read and write.
- MACRA and the Telecentre management should buy an alternative power supply e.g. a generator.
- Telecentre management should collaborate with organisations such as academic institutions in order to create localised content. This would partly solve the problem of lack of local content in the Telecentre which many users complained about and perhaps in the end attract many new members.
- Technical expertise should be available within the telecentres. This would mean employing another staff member as a technician or capacity building among the already existing staff.
- MACRA should train telecentre staff in customer care services.

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